DOCUMENT RESUME

ED 191 886 TM 800 510

TITLE	Economics Education: A Statewide Assessment in Texas.
INSTITUTION	Texas Education Agency, Austin.
PUB DATE	79
NOTE	103p.: Small print may be marginally legible.
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	*Academic Achievement; Black Students; Criterion Referenced Tests; Curriculum Evaluation; *Economics Education; *Educational Assessment; Grade 5; Grade 11; High Schools; Hispanic Americans; Intermediate Grades; Socioeconomic Status; *State School District Relationship; Student Characteristics; *Student Evaluation; White Students
IDENTIFIERS	Texas; *Texas Assessment Project

ABSTRACT

Findings in this report provide information about the strengths and weaknesses of Texas fifth and eleventh graders in economics education. The purpose of statewide assessment in Texas is reflected in the commitment of the State Board of Education to improve instruction. The measurement instrument (criterion-referenced tests emphasizing consumer education, free enterprise education, and general economics education), details of test administration, and special considerations are explained. Statewide and regional test results are detailed, and general conclusions are offered for each grade level. Supplementary information regarding Texas high school programs in economics is provided, and information from principals and students is summarized. Various appendices are included. (Author/RL)

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ECONOMICS EDUCATION

A STATEWIDE ASSESSMENT IN TEXAS

ED191886

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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TEXAS EDUCATION AGENCY

TAP
TEXAS ASSESSMENT PROJECT
Texas Education Agency, Austin, 1979

ECONOMICS EDUCATION
A STATEWIDE ASSESSMENT IN TEXAS

TEXAS EDUCATION AGENCY
201 EAST 11th STREET
AUSTIN, TEXAS 78701

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FOREWORD

The State Board of Education has a long-standing committment to improve instruction in Texas. A first step toward improvement is to obtain current information about the achievement of Texas students. In 1977, the Sixth-fifth Texas Legislature mandated statewide assessment procedures to assess student achievement in several areas of the curriculum. The Texas Education Agency established the Texas Assessment Project (TAP) and conducted an assessment of reading, writing, mathematics, and citizenship during the 1978-79 school year. Because of strong interest in career education and economics education by the Texas Legislature and the State Board of Education, those areas were selected for assessment during the 1978-79 school year.

The findings in this report provide information about the strengths and weaknesses of Texas students in the area of economics education. Assessment is only a first step toward improvement of instruction. Once the areas of low student achievement have been identified, appropriate education strategies may be planned and resources allocated to strengthen instruction so that these student learning needs may be overcome.

We are grateful for the positive response from local school officials in carrying out this assessment. Every school district asked to participate in this assessment agreed to do so and cooperated fully throughout the effort.

All Texas educators are urged to use this information to plan improvements in learning for Texas students. Only through joint efforts will we be able to provide the finest educational programs for the children and youth of Texas.

A.O. Bowen
Commissioner of Education

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BACKGROUND

To enhance the economic opportunities for students currently enrolled in Texas schools and to ensure economic competence for Texas citizens in the future, state law and State Board of Education policy require that every school district provide instruction on the essentials and benefits of the free enterprise system and general economics concepts. In 1973, the *Sixth-third Legislature*, through House Bill 1118, amended the Texas Education Code, Sections 12.1031 and 21.120 mandating that all public high schools give instruction in the essentials and benefits of the free enterprise system. Subsequently, the State Board of Education amended school accreditation standards to require that all schools: (1) offer an elective free enterprise course to all high school students, (2) incorporate the study of the free enterprise system into the required high school social studies courses, and (3) correlate free enterprise education instruction with the elementary curriculum.

The Sixty-fifth Legislature expanded the scope of free enterprise education by the passage of S.B. 1040, titled the Economic Education Act of 1977. Included among its provisions are the stipulations that the State Board of Education and the Central Education Agency: (1) implement local school system evaluations of the effectiveness of the economic education program, (2) require all Texas high schools to give instruction on the essentials and benefits of the American economic system, and (3) adopt regulations to ensure the teaching of economics education to all pupils in Grades 1-12 on a schedule of: Grades 10-12 by the 1978-79 school year; Grades 7-9 by 1979-80; Grades 4-6 by 1980-81; and Grades 1-3 by 1981-82. School accreditation standards were amended to fulfill the legislative mandate.

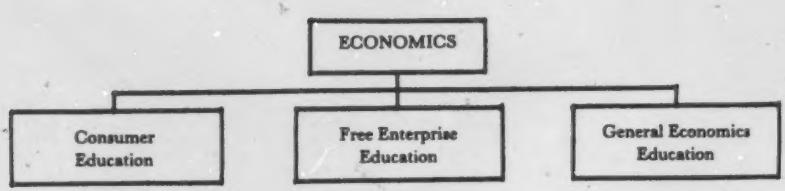
In view of continuing interest on the part of the Texas Legislature and the State Board of Education in the total field of economics and specifically in free enterprise, economics education was selected as one of the areas assessed in the second phase of the Texas Assessment Project. This publication provides information about the results of the assessment of the achievement of fifth and eleventh grade students in economics education.

Career education was also included in this second phase. Student results in career education are reported in publication GEO 822 01, *Career Education, A Statewide Assessment in Texas.*

The Measurement Instruments

An extensive search of economics tests was conducted to select an instrument which would measure a spectrum of the economics curriculum broad enough for statewide assessment. For the most part, the available tests reviewed were developed for special courses in economics and were not sufficiently broad in scope.

The most promising tests were those used by the Florida Statewide Assessment Program in 1977-78. These measures were developed as criterion-referenced tests. They focus on performance in terms of mastery or non-mastery of objectives. Permission was obtained from the State of Florida for the use of these materials, and the test items and objectives were reviewed by Texas Education Agency personnel. Objectives and items deemed to be inappropriate for the Texas curriculum in economics* were deleted. In other instances, items were revised or added in order to improve or broaden the measurement capacity of the tests.



The tests, developed by the Florida State Department of Education, center on specific topics in the broad field of economics. These topics are consumer education, free enterprise education, and general economics education. Examination of the objectives under each of the topics shows that there is some overlap between objectives. However, for this assessment, the Florida organizational pattern of objectives and test coverage was kept intact. Five tests were used for this assessment.

*In reporting this study, when reference is made to the overall area of the assessment, the term "economics" will be used. When reference is made to a specific topic, "consumer education", "free enterprise education", or "general economics education" will be used.

Topics

Grade 5	Consumer Education
	General Economics Education
Grade 11	Consumer Education
	Free Enterprise Education
	General Economics Education

Student performance on the tests is reported either as: (1) the percentage of students who mastered each objective, or (2) the average percent of objectives mastered within a topic.

Test Administration

The sampling plan for the 1979 assessment was designed under the provisions of an Agency contract with the Research Triangle Institute (RTI) of Raleigh-Durham, North Carolina. Five samples were drawn, two for grade five and three for grade eleven. The samples were designed to be nonoverlapping; thus, no student took more than one test.

The sampling pattern was designed to provide reliable information on student performance statewide and within each of the 20 regions served by an education service center. The samples were not designed to be representative of any school district, campus, or classroom.

Two samples of approximately 11,000 each from the estimated 194,000 eligible students in the state were selected to take the fifth grade tests. Three samples of approximately 9,550 each from the estimated 179,000 eligible students were selected to take the three eleventh grade tests. All five samples comprised about 50,650 students.

RTI conducted the testing. The tests were given by trained test administrators to students across the state. This procedure reduced the burden on school personnel and ensured uniform administration of the tests throughout the state.

Special Considerations

When reviewing the assessment results, several factors should be kept in mind:

- The sampling procedures permit reporting with a high level of statistical precision and confidence that the findings represent performance of all fifth and eleventh graders in the public schools of Texas.

- These results can be used to identify successes and problem areas in student achievement on a statewide basis, within each of the 20 regions of the state, and for selected subpopulations of students. No information is available from this sample which can be used responsibly to make judgments about the performance of any school district, school campus, teacher, or individual student.

- Conventional methods were used to determine statistical significance or differences between scores of groups of students. Statistically significant differences were used as the basis for the findings in this report. The methodology for determining statistical significance, including sample sizes, is contained in the technical documentation of this assessment.

- Each testing topic covers a limited number of objectives. In no way should the few objectives measured under a topic, or for all of the topics tested, be considered as complete coverage of the field of economics.

Objectives

Included in this section are the objectives measured by the tests in each area of economics. Listed with each objective is a fraction which indicates the number of items which must be answered correctly to demonstrate mastery of that objective. For example, "Mastery level = ¾" indicates that the objective is measured by four items, and the student demonstrates mastery by answering at least three correctly.

Fifth Grade Consumer Education

1. Identify quickly-consumed and longer-lasting goods (e.g., food, clothing, housing). (Mastery level = ¾)
2. Distinguish between needs and wants (e.g., food, clothing, luxury items). (Mastery level = ¾)
3. Identify examples of scarce resources (e.g., natural resources). (Mastery level = ¾)
4. Distinguish between examples of private and public property (e.g., banks, city park, post office). (Mastery level = ¾)

5. Identify the purposes and uses of advertising. (Mastery level = ⅗)
6. Identify common budget items for a student or family. (Mastery level = ¾)

Fifth Grade General Economics Education

1. Distinguish between producers of goods and producers of services (e.g., manufacturer, doctor, farmer, delivery company). (Mastery level = ¾)
2. Recognize the flow of distribution of products from producer to consumer. (Mastery level = ¾)
3. Recognize the influence of demand on the production of goods and services. (Mastery level = ¾)
4. Identify producers and non-producers (e.g., truck driver newspaper delivery person). (Mastery level = ¾)
5. Define common economic terms (budget, taxes, demand, consumer, consumption, barter, supply, economic interdependence, and specialization). (Mastery level = 6/9)
6. Define common economic terms (free enterprise, producer, production, scarcity, market, and distribution). (Mastery level = 4/6)

Eleventh Grade Consumer Education

1. Recognize how consumer laws, regulations, and agencies affect consumers. (Mastery level = 3/5)
2. Identify the purposes of personal saving and investing. (Mastery level = ⅗)
3. Identify the means of personal saving and investing (e.g., interest rates, purposes of banks, and profitable investments). (Mastery level = ⅗)
4. Identify reasons for business investment. (Mastery level = ¾)
5. Identify factors which influence the preparation of a personal or family household budget. (Mastery level = ¾)
6. Identify appropriate procedures for establishing credit. (Mastery level = ¾)
7. Distinguish among types of credit organizations, credit costs, and finance charges. (Mastery level = ¾)
8. Identify factors to be considered in the purchase of goods and services. (Mastery level = ¾)
9. Identify various sources of consumer information that aid in the purchase of goods and services. (Mastery level = ¾)
10. Identify the interrelationships of rights and responsibilities for consumers and businesses. (Mastery level = ¾)
11. Identify the basic provisions and responsibilities contained in implied, limited, and expressed warranties. (Mastery level = ¾)
12. Identify advantages and disadvantages of home buying in terms of taxes, mortgates, and investments. (Mastery level = ¾)

Eleventh Grade Free Enterprise Education

1. Identify the effect that scarcity of resources have on prices and competition. (Mastery level = ⅗)
2. Identify the relationships between competition and prices, services, and the quality of services. (Mastery level = ¾)
3. Recognize that the cost of one economic choice is partially measured in terms of giving up other opportunities. (Mastery level = ¾)
4. Distinguish among characteristics which are associated with a free enterprise system and those associated with other ideologies. (Mastery level = ¾)
5. Identify how government influences the free enterprise economy through its actions (e.g., requiring labels on goods, regulating monopolies, and taxing imports, and raising or lowering the income tax). (Mastery level = ¾)
6. Describe how the profit motive and competition affect technological advances and product quality. (Mastery level = ⅗)
7. Define common economic terms (e.g., demand, supply, and capitalism). (Mastery level = ⅗)

Eleventh Grade General Economics Education

1. Recognize the interrelationships among production, consumption, and distribution of goods and services. (Mastery level = ¾)
2. Identify the effects of scarcity of resources on production, exports, labor, supply, and manufactured products. (Mastery level = ¾)
3. Identify the factors of production (e.g., human and natural resources and capital). (Mastery level = ¾)
4. Recognize how taxes affect the total amount of private consumption of goods and services. (Mastery level = ¾)
5. Recognize how changes in income, personal preferences, and the price of other goods and services affect the demand for a good or service. (Mastery level = ¾)
6. Recognize how changes in cost, technology, and price of other goods and services affect the demand for a good or service. (Mastery level = ⅗)
7. Recognize the effects of increased specialization on the consumption of goods and services. (Mastery level = ¾)
8. Evaluate advertising techniques and their influence on demand for goods and services. (Mastery level = ¾)

Student Performance Levels

Three performance levels for groups of students have been designated as guidelines to describe mastery of each objective:

Level I—Objective mastered by 90% or more of the students
Level II—Objective mastered by 75% to 89% of the students
Level III—Objective mastered by fewer than 75% of the students

Statewide student achievement is considered adequate when an objective was mastered by at least 90 percent of the students (Level I). When an objective was mastered by 75 to 90 percent of the students (Level II), performance is considered less than adequate, but not so deficient as to receive attention before those objectives which have lower percentages of mastery.

Student performance is considered to be seriously deficient on those objectives mastered by fewer than 75 percent of the students (Level III). This level suggests a problem which should receive priority attention. These levels should be used only as points of reference.

The mastery criteria and the three levels of mastery described above are intended to serve as the first estimate of appropriate standards for performance in economics education for Texas.

RESULTS OF CRITERION REFERENCED TESTS IN ECONOMICS ADMINISTERED TO GRADE FIVE

This section contains the student performance results obtained from the administration of consumer and general economics education tests to representative samples of fifth grade students in Texas. Student performance results are reported as profiles of student mastery for each objective for the following student populations:

- total statewide population
- student subpopulations in geographic regions
- student subpopulations defined by single demographic characteristics such as ethnicity, sex, family income status, or language spoken in the home

Student performance was also analyzed by the performance of student populations defined by a combination of two characteristics such as sex and ethnicity or ethnicity and type of school district. Only one of these analyses, ethnicity and family income level, is contained in this section. In all other analyses, no consistent deviations from the performance patterns of populations defined by only one characteristic were noted. These results are not reported here, but are available as technical documentation from the Texas Education Agency.

Statewide Results—Grade 5

About 90 percent of Texas fifth graders demonstrated mastery of two of the objectives, both consumer-oriented skills (Figure 1). Both of these objectives deal with concrete ideas—the differentiation between needs and wants and between quickly-consumed and longer-lasting goods. One other concept focusing on effective consumerism, and one of the more general economics concepts were mastered by about three-fourths of the fifth graders. All other objectives were mastered by one-half or fewer of the students.

On the general economics education test (Figure 2), fifth graders performed best (75 percent mastery) on the objective dealing with the distinctions between producers and non-producers. They performed least well on the objective dealing with the concepts of public and private property, which proved to be beyond the reach of all but 16 percent of the fifth graders. The students had difficulty recognizing that post offices and courthouses were public property, while banks and moving vans were private property.

PERCENT OF FIFTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES

Statewide Results

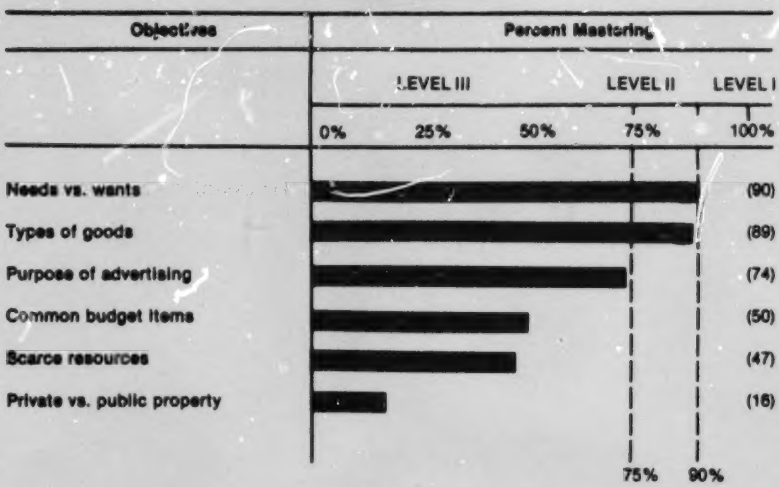


Figure 1

PERCENT OF FIFTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES

Statewide Results

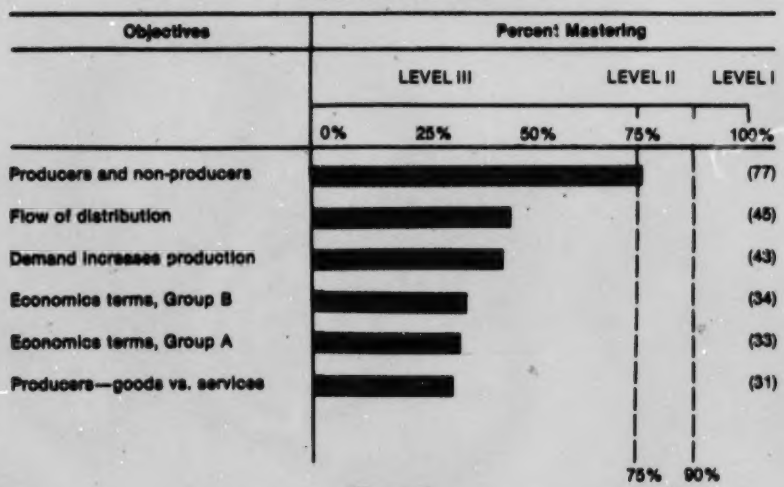


Figure 2

In addition to considering separately the levels of mastery for each objective, it is useful to look at the performance of students on all the objectives in the two areas measured by the tests. Table I shows the proportion of fifth graders who mastered a given number of objectives in consumer and general economics education.

TABLE I

PERCENT OF FIFTH GRADE STUDENTS MASTERING A SPECIFIED NUMBER OF ECONOMICS EDUCATION OBJECTIVES

Consumer Education Objectives		General Economics Objectives	
Number of Objectives Mastered	Percent of Students Mastering	Number of Objectives Mastered	Percent of Students Mastering
6 (All)	9%	6 (All)	6%
At least 5	34%	At least 5	19%
At least 4	56%	At least 4	31%
At least 3	78%	At least 3	47%
At least 2	91%	At least 2	68%
At least 1	97%	At least 1	88%

As shown in Table I, the profiles for the two tests are quite different. Except for similar percentages of students who mastered all the objectives, considerably smaller percentages of students mastered a given number of general economics education objectives than those objectives that focused on consumer knowledge. More than one-half of the fifth graders mastered at least four of the consumer education objectives, while less than one-third mastered at least four of the general economics education objectives. Twelve percent of the fifth graders did not master any of the general economics education objectives.

Regional Results—Grade 5

Performance data were reported for each of the 20 geographical regions of the state served by an education service center (ESC). The 20 regional service centers provide a broad range of planning, curriculum, inservice, media, and other services to school districts within their regions. Since school districts participate in service center activities on a voluntary basis, the findings about student performance in a region cannot in any way be used as an evaluation of the effectiveness of the regional education service center. The purpose of reporting results for each region is to provide information that each education service center can use in designing and offering services appropriate for the school districts in the region. Figure 3 shows a map of Texas divided into ESC regions.

Tables II and III show student performance by region on the consumer education and general economics education tests. Regional differences in student population, such as the proportion of minority students, are important factors to consider when examining these tables.

On both the consumer education and general economics education tests, fifth graders from Region IV attained percentages of mastery above the state level on most of the objectives. Students in Regions I and II had percentages of mastery below the state level on almost all of the objectives in both tests.

On the consumer education test, students in Regions IX and X performed above the state level on most of the objectives. Fifth graders in Regions XVII and XIX performed below the state level on most of the objectives.

TWENTY EDUCATION SERVICE CENTER REGIONS OF TEXAS

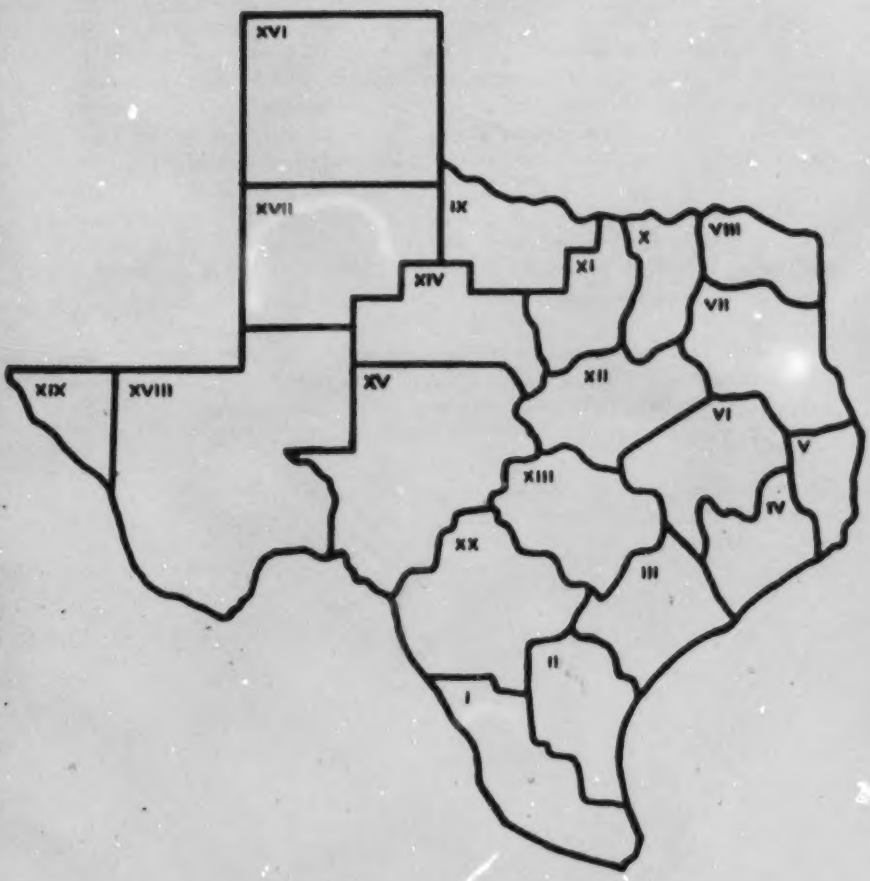


Figure 3

TABLE II

PERCENT OF FIFTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY REGION

Objectives		Statewide Results	Education Service Center Regions																			
			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
Needs vs. wants		90	80*	88	89	93*	88	88	88	92	94*	90	90	90	88	93*	87	93*	86*	93*	86*	88
Types of goods		89	76*	83*	89	93*	92	89	88	91	93*	91*	92	92	93*	93*	90	91	88	92*	81*	85*
Purpose of advertising		74	57*	64*	70	78*	78	72	74	75	81*	81*	78*	74	73	80*	75	82*	67*	78	81*	89
Common budget items		80	32*	34*	48	85*	58*	52	54	51	80*	57*	59*	48	50	54	47	55	42*	50	31*	43*
Scarce resources		47	30*	34*	48	48	50	48	59*	50	55*	54*	54*	51	52	49	48	56*	37*	48	24*	40
Private vs. public property		18	8*	10*	12	19	17	14	17	14	23*	18	20	14	14	15	14	21	14	18	12*	14
STUDENT POPULATION TOTAL NUMBER (IN THOUSANDS)		212.2	12.4	7.4	3.8	43.7	6.7	6.3	10.1	3.8	2.8	29.5	17.5	6.9	10.2	3.4	3.6	5.6	6.3	5.3	6.4	18.4
Ethnic Proportions by Percent**	Black	14.9	†	3	12	23	26	20	25	26	9	22	12	20	12	6	3	5	8	7	3	6
	Mexican American	27.1	91	83	37	16	2	7	2	1	9	10	8	10	28	24	40	20	40	36	71	58
	Other***	57.9	9	34	51	61	71	73	73	73	82	68	79	70	62	70	57	75	52	57	26	35

*Indicates that the percentage figure is above or below the statewide percentage and the difference in the two is statistically significant.
**Percent figures do not equal 100% due to rounding.
***The other group is composed almost entirely of white students (more than 99%).
†Less than ½ percent.

TABLE III

PERCENT OF FIFTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY REGION

Objectives		Statewide Results	Education Service Center Regions																			
			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
Producers and non-producers		77	84*	0*	79*	84*	86*	78	79	71	76	72*	80	78	83	79	72	80	78	76	78	70*
Flow of distribution		46	29*	33*	52*	49	39	45	48	41	50	47	49	51	49	45	47	48	43	44	36*	36*
Demand increases production		43	30*	32*	54*	46*	41	40	46	43	47	40	46	45	45	46	43	45	39*	43	42	41
Economic terms, Group B		34	19*	29*	44*	35	29*	34	40*	31	41*	34	38	38	37	35	32	38	34	35	30	33
Economic terms, Group A		33	11*	23*	37	40*	24*	33	36	24*	40	36	36	36	40	38	32	34	28*	30	17*	25*
Producers—goods vs. services		31	17*	23*	30	36*	27	24*	30	26*	32	31	40*	31	35	36*	27	30	25*	26	26	26*
STUDENT POPULATION TOTAL NUMBER (IN THOUSANDS)		212.2	12.4	7.4	3.8	43.7	6.7	6.3	10.1	3.8	2.8	29.5	17.5	6.9	10.2	3.4	3.5	5.8	6.3	5.3	8.4	18.4
Ethnic Proportions by Percent**	Black	14.9	†	3	12	23	26	20	26	26	9	22	12	20	12	6	3	5	6	7	3	6
	Mexican American	27.1	91	63	37	16	2	7	2	1	9	10	8	10	26	24	40	20	40	36	71	58
	Other***	57.9	9	34	51	61	71	73	73	73	82	68	79	70	62	70	57	75	52	57	26	35

*Indicates that the percentage figure is above or below the statewide percentage and the difference in the two is statistically significant.
**Percent figures do not equal 100% due to rounding.
***The other group is composed almost entirely of white students (more than 99%).
†Less than ½ percent.

Results by Selected Subpopulations—Grade 5

Information about the students tested was collected from local school districts and from asking the students at the time of testing.[1]

Sex

Higher percentages of female students than male students demonstrated mastery of several objectives measured by the tests. As shown in Figures 4 and 5, significantly more females than males mastered four of the consumer objectives and two of the general economics objectives. Performance of males and females did not differ significantly for the remaining six objectives.

[1]Appendix B, page 82, and Appendix C, page 83, contain the forms on which student information was collected.

PERCENT OF FIFTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES FOR MALES AND FEMALES

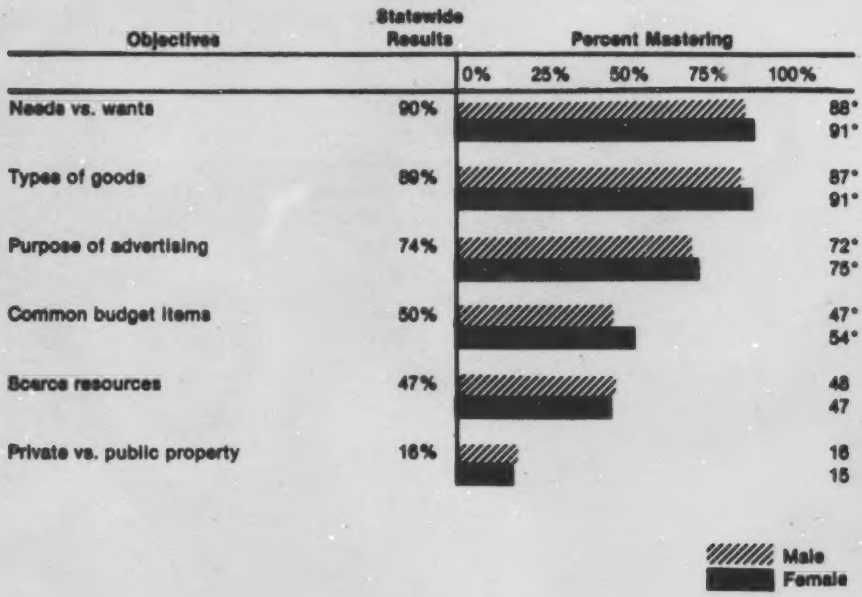


Figure 4

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF FIFTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES FOR MALES AND FEMALES

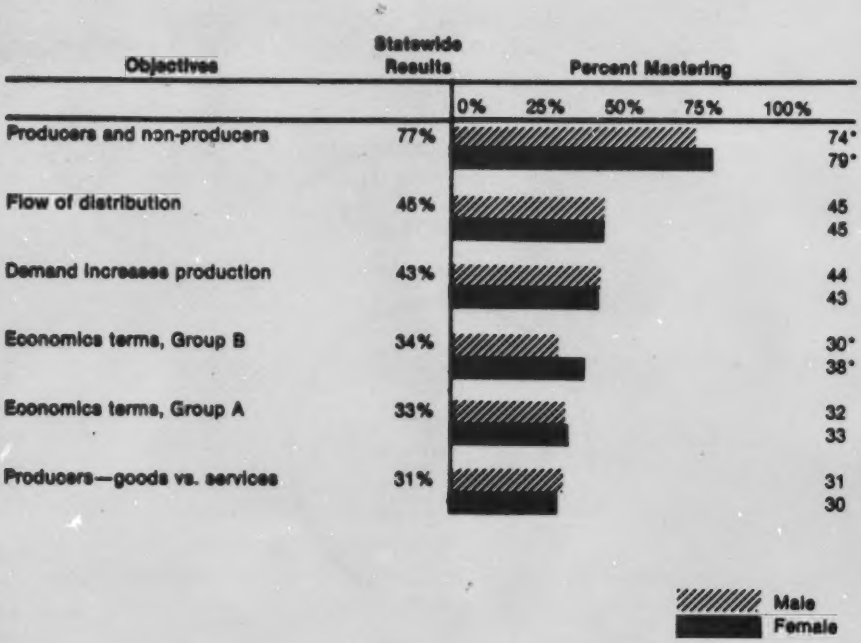


Figure 5

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

Ethnicity

Students were identified as members of one of three ethnic groups: black, Mexican American, and "other". (The "other" category was composed almost entirely of white students.) The statewide percentages of fifth grade students in these three groups are shown in Figure 6.

PROPORTION OF STUDENTS IN EACH ETHNIC CATEGORY AT THE FIFTH GRADE

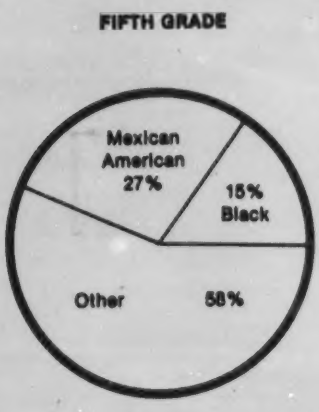


Figure 6

Figures 7 and 8 contain comparisons among performance of students in these three ethnic groups on each objective.

Larger percentages of "other" students than black and Mexican American students mastered each of the consumer education and general economics education objectives. The disparity between mastery percentages of "other" students and black and Mexican American students was most apparent on the following objectives:

- Identify the purposes and uses of advertising
- Identify common budget items for a student or family
- Identify examples of scarce resources
- Recognize the flow of distribution of products from producer to consumer
- Identify producers and consumers

PERCENT OF FIFTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY ETHNIC GROUP

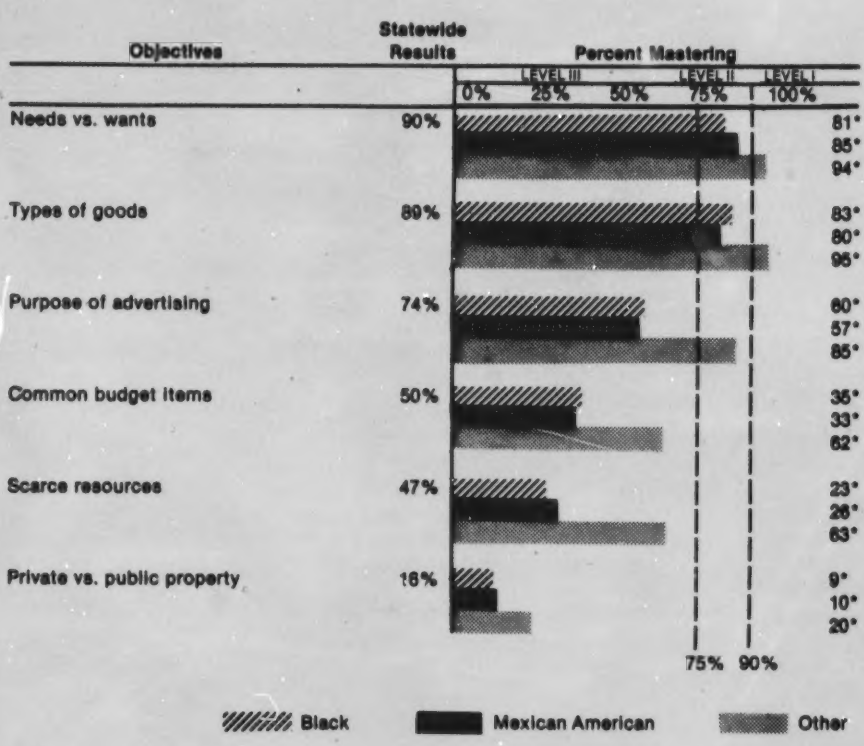


Figure 7

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF FIFTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY ETHNIC GROUP

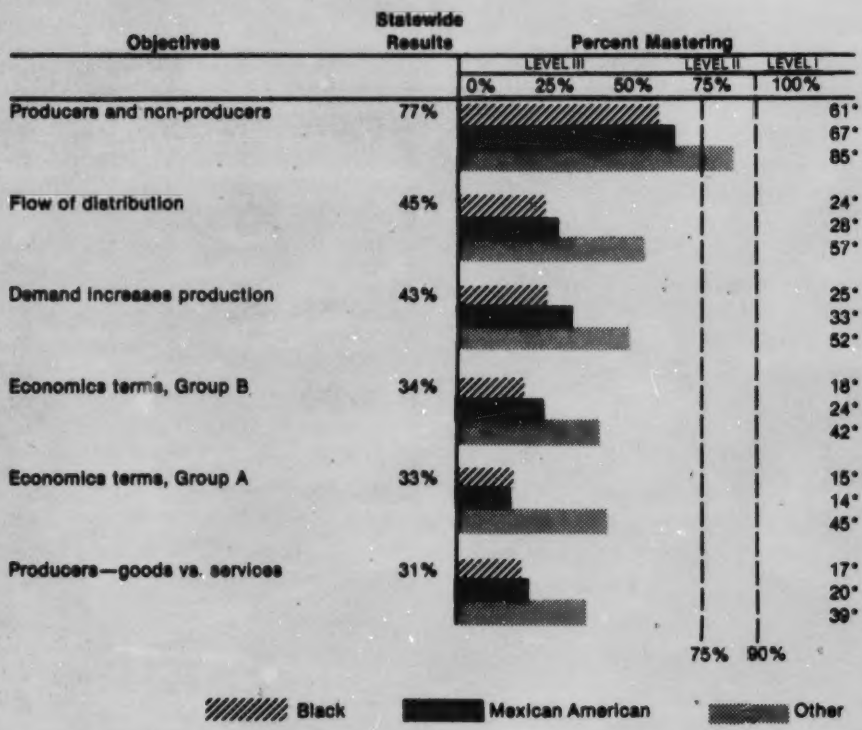


Figure 8

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

Type of School District

Test results show performance of students in seven types of school districts: (1) urban, (2) other central cities, (3) fast-growing suburban, (4) stable suburban, (5) non-metropolitan with 1,000 or more ADA, (6) non-metropolitan of less than 1,000 ADA but having a central town, and (7) rural districts.[1] The fifth graders in urban and other central cities averaged fewer objectives mastered than the state level, and their peers in fast-growing suburbs averaged more objectives mastered than the state. This trend held for all but one objective for urban districts, in all but two for the 1,000 + non-metro schools, and in all but four objectives for the other central city districts. Performance for students in stable suburbs, small town non-metropolitan, and rural districts was approximately the same as that of the state. Table IV, page 24, and Table V, page 26, provide performance of students by objective for each classification of school district.

Family Income

Previous assessments in Texas and other studies have shown a relationship between student performance and economic status of the family. Eligibility for participation in the National School Lunch Program, which provides free or reduced price meals for students, was used as the "family income" indicator for TAP. Eligibility for this program, which operates in more than 1000 districts in Texas, is based on family income and the number of children in the family. Based on this criterion, about 33 percent of Texas fifth graders tested were identified by school records as members of low income families.

[1]See Appendix, A, page 78, for the definition of each of these types of school districts.

The percentage of students from lower income families (eligible for free or reduced price lunch) mastering each of the 12 objectives tested was lower than that of students not from low income families.

Home Factors Related to Achievement in Economics

Fifth graders were asked to provide information about home conditions believed to influence learning. Variables on which data were collected include: (1) language(s) spoken in the home, (2) reading materials in the home, (3) time per day watching television, and (4) time spent on homework per week. These characteristics cannot be regarded as having a direct cause-and-effect relationship with the achievement of students. The general patterns of performance of students defined by these characteristics are reported below and the performance of students on each objective is shown in Tables IV and V, pages 24 to 27.

1. Language(s) Spoken in the Home

Students were asked to respond to questions about dominant home language. Performance was analyzed according to whether a student checked, "We always speak English," "We speak English most of the time," "We speak another language most of the time," or "We always speak another language". Students who reported speaking only English at home mastered every objective in greater percentages than the state total. Students reporting the use of another language most or all of the time mastered every objective in lesser percentages than the state total.

2. Reading Materials in the Home

Students were asked whether they had regular access in their homes to: (1) newspapers, (2) magazines, (3) encyclopedias, and (4) more than 25 books. Student responses to the four reading materials questions were combined to form an index. The index categorized students who reported having none, one, two, three, or four types of the reading materials listed. Fifth graders who reported having at least three types of reading materials in the home performed better on all twelve objectives than those who had two or fewer types of materials.

3. Time Reported Watching Television

Students were asked the amount of time they spent watching television on the previous night. Since the testing sessions occurred on different days on a random schedule, this time is reported as time generally watched per day. Responses were grouped into several categories: no time spent watching television, one to two hours, two to three hours, three to four hours, and four hours or more.

Pupils who watched one to three hours of television per night performed above the statewide percentages on all but four objectives. Pupils who watched more than four hours per night fell below the statewide percentages on all objectives.

4. Homework

The students were asked, "What is the average amount of time you spend on homework in a week?" The responses were grouped according to the following categories: (1) students who either are not assigned homework or do not do the assignment, (2) those who do less than five hours per week, and (3) those who do more than five hours per week.

The "over five hours" group mastered every objective in significantly greater percentages than the statewide level. The scores of those students who reported doing homework, but less than five hours, were above the statewide percentages on all but four objectives. Those who did no homework had mastery percentages below the state level on every objective.

Student Populations with Special Learning Characteristics

School officials were asked to indicate whether fifth grade students participated in the following special programs:

- Special Education
- Compensatory Education (Title I Regular, Title I Migrant, or State Compensatory Education)

Because of the guidelines for exempting students from the samples, the main category of special education students taking the tests was probably the language/learning disabled. The percentages of special education students and students enrolled in compensatory education mastering each objective were below the state total.

TABLE IV

PERCENT OF FIFTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY REPORTING GROUPS

Objectives	Statewide Results	District Type							Family Income		Reading Materials				Homework			Home Language			
		Urban	Other Central City	Fast Grow. Suburb	Stable Suburb	1000 ADA + Non Metro	Town Non-Metro	Rural	Eligible	Not Eligible	None or One Type	Two Types	Three Types	All Four Types	Not Done	Less Than 5 Hrs. per Wk.	Over 5 Hrs. per Wk.	English Only	Mostly English	Mostly Other Language	Other Language Only
Needs vs. wants	90	88*	89	93*	90	88	86	87	83*	93*	82*	87*	92*	94*	80*	92*	91*	92*	88	86*	76*
Types of goods	89	87*	86*	93*	90	87*	90	88	80*	96*	78*	86*	92*	96*	77*	92*	91*	94*	89*	80*	69*
Purpose of advertising	74	70*	71	82*	77	69*	72	74	57*	83*	53*	67*	78*	87*	60*	77*	80*	80*	69*	60*	48*
Common budget items	50	46*	47	58*	55	48*	52	48	33*	60*	29*	42*	53*	66*	36*	53*	57*	57*	46*	33*	22*
Scarce resources	47	37*	44	58*	51	46	44	49	34*	61*	24*	37*	50	67*	33*	50*	56*	56*	43*	25*	17*
Private vs. public property	18	14	13*	20*	14	14	16	14	9*	19*	8*	12*	15	24*	11*	16	19*	18*	14*	10*	7*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF FIFTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY REPORTING GROUPS (Continued)

Objectives	Statewide Results	TV Watching					Comp. Ed.		Spec. Ed.	
		None	1-2 Hours	3-3 Hours	3-4 Hours	Over 4 Hours	Participates	Does Not Participate	Participates	Does Not Participate
Needs vs. wants	90	89	91*	92*	91	84*	78*	92*	85*	91*
Types of goods	89	89	91*	92*	91*	83*	75*	93*	32*	91*
Purpose of advertising	74	77*	78*	77*	75	62*	49*	80*	44*	75*
Common budget items	50	51	56*	54*	51	40*	25*	57*	22*	52*
Scarce resources	47	51*	53*	53*	46	31*	19*	55*	18*	49*
Private vs. public property	16	21*	17	17	16	10*	6*	18*	8*	16*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

TABLE V

PERCENT OF FIFTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY REPORTING GROUPS

Objectives	Statewide Results	Urban	Other Central City	Fast Grow. Suburb	Stable Suburb	Slow Suburb	1000 ADA + Non Metro	Town Non-Metro	Rural	Eligible	Not Eligible	None or One Type	Two Types	Three Types	All Four Types	Not Done	Less than 5 hrs. per week	Over 5 hrs. per week	English Only	Mainly English	Mainly Other Language	Other Language Only
	District Type									Family Income		Reading Materials				Homework			Home Language			
Producers and non-producers	77	71*	72*	84*	80	72*	75	77	83*	84*	61*	71*	79*	87*	66*	79*	81*	81*	75	68*	58*
Flow of distribution	46	39*	41*	56*	47	41*	44	44	27*	56*	24*	35*	46	63*	36*	46*	53*	51*	43	27*	23*
Demand increases production	43	35*	39*	53*	47	39*	40	44	31*	51*	28*	34*	44	58*	38	44	50*	47*	44	30*	33*
Economics terms, Group B	34	24*	29*	42*	37	33	34	34	21*	41*	22*	25*	34	47*	25*	36*	39*	38*	34	21*	20*
Economics terms, Group A	33	24*	26*	44*	36	26*	29*	39	14*	43*	12*	22*	33	51*	27	34	41*	39*	29*	14*	9*
Producers—goods vs. services	31	26*	26*	41*	32	26*	25*	36	18*	36*	19*	22*	33*	42*	26	31	37*	35*	29	18*	10*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF FIFTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY REPORTING GROUPS (Continued)

Objectives	Statewide Results	TV Watching					Comp. Ed.		Spec. Ed.	
		None	1-2 Hours	2-3 Hours	3-4 Hours	Over 4 Hours	Participates	Does Not Participate	Participates	Does Not Participate
Producers and non-producers	77	79	81*	80*	77	66*	57*	82*	46*	78*
Flow of distribution	46	46*	51*	47	46	34*	22*	51*	19*	46*
Demand increases production	43	44	50*	46	43	34*	25*	48*	20*	44*
Economics terms—Group B	34	36	36*	37*	32	27*	17*	36*	16*	35*
Economics terms—Group A	33	34	36*	39*	29	22*	10*	36*	11*	34*
Producers—goods vs. services	31	31	36*	33	28	22*	16*	36*	16*	32*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

Comparison of Performance Scores by Selected Subpopulations

As was noted earlier in this section, student performance was examined also for various subpopulation groups defined by two demographic variables. To facilitate these comparisons, a method for reporting overall student performance on the total test, rather than for each separate objective, was needed. A "performance score" for these subpopulations is used to describe student performance on the tests. This score represents student performance across all objectives collectively on both the consumer education and the general economics education tests. The score gives the average percentage of the objectives mastered by a group of students. The range of possible values of the score is 0 to 100, with the best possible student performance being a score of 100, (see Appendix G). To ensure that the sample size for each subpopulation would be large enough for analysis, some reporting groups described earlier were combined.

The analyses conducted were as follows:

- Sex of student by type of school district
- Ethnicity by type of school district
- Ethnicity by sex of student
- Family income level by type of school district
- Family income by ethnicity
- Reading materials index by ethnicity
- Family income level by reading materials index
- Homework time per week by sex of student
- Family income level by homework time per week

Only the cross-classification of family income by ethnicity is reported here, as no consistent deviations from the patterns of student performance defined by only one characteristic were found.

Family Income by Ethnicity

- As is displayed in Figure 9, for all three ethnic groups on both tests, the students eligible for free or reduced price lunches had lower scores than those who were not eligible.

- For students from both family income levels, "other" students had higher performance on both tests.
- Mexican American students had higher scores than black students at both income levels on the general economics education test and at the higher income level on the consumer education test.
- Of the students eligible for free or reduced price lunches, black students scored higher than Mexican American students on the consumer education test.

GRADE FIVE
PERFORMANCE SCORES
BY ETHNICITY AND BY FAMILY INCOME LEVEL

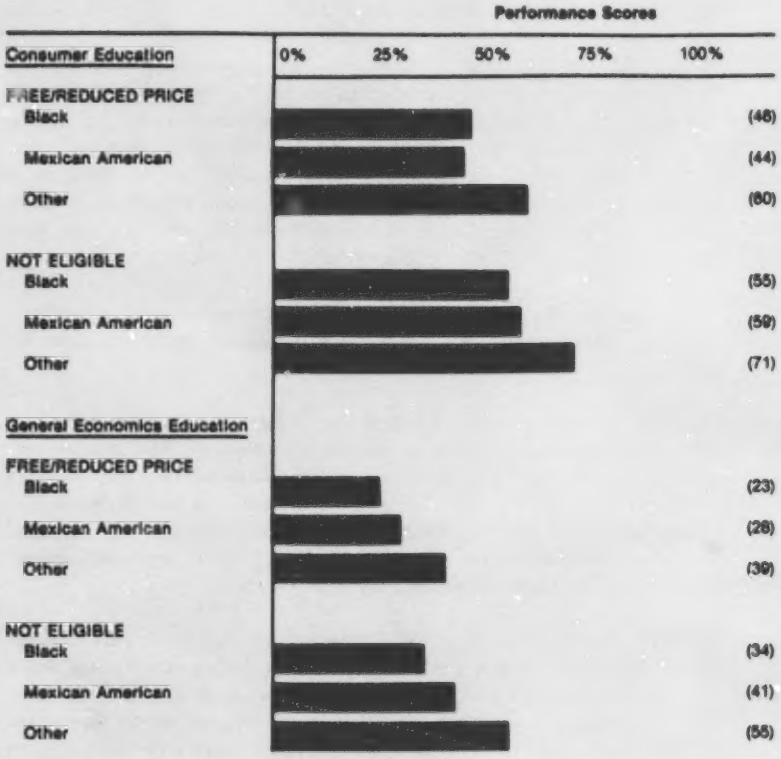


Figure 9

Summary of Findings, Grade 5 Student Performance

1. Only one objective was mastered by 90 percent or more of Texas fifth grade students. This objective was in the area of consumer education: "Distinguish between needs and wants" (90%).

   On only two objectives was mastery between 76 and 89 percent. One of those was in the area of consumer education: "Identify examples of quickly-consumed and longer-lasting goods" (89%). The other one was in general economics education: "Identify producers and non-producers" (77%).

   The remaining nine objectives were mastered by fewer than 75 percent of the students. One objective was mastered by 74 percent of the students, one by 50 percent, three in the 40 percent range, three in the 30 percent bracket, and the lowest performance was at 16 percent.

2. When analyzing fifth grade results by region, students in Region IV performed above the state level on eight of the twelve objectives tested in the fifth grade. Ten of the 20 regions performed above the state level on at least one objective in consumer education. Five of the regions were below the state level on 2 to 6 of the consumer education objectives. On the general economics education objectives, six of the regions were above state levels on one or more of the objectives, while nine of the regions were below the state results on one to all six of the objectives.

3. Females performed significantly better than males on half of the objectives. For the remaining objectives, there was no significant difference in performance.

4. While the performance of students in the "other" group was significantly above that of black and Mexican American students on the consumer and general economics education objectives, the Mexican American students attained higher percentages of mastery than blacks on five of the twelve. When using ethnicity in combination with other demographic variables, the same pattern of performance generally held: "other" students, highest; Mexican American, next highest; and black students, third.

5. In observing performance on the 12 objectives by students in various types of school districts, student performance in fast-growing suburbs was above the state level on all 12 objectives, while performance in urban and non-metropolitan (1000 ADA and above) was generally below the state level. Stable suburban and rural districts attained percentages at the state level on all 12 objectives.

6. Students from low income families (i.e., those who were eligible for free or reduced price meals) performed less well on all objectives and in overall performance than did students not from low income families.

7. On home factors related to student performance on the fifth grade economics tests, the following results are noted:

   - Among the home language groups, performance of students speaking only English was best. Generally, as students reported using less English in the home, their percentages of mastery decreased.

   - Students having all four types of reading materials in the home (book, newspaper, magazine, and encyclopedia) performed better on all objectives than those who reported fewer reading materials in the home.

   - Students watching one to three hours of television performed better than the state level, those watching three or four hours performed at the state level, and those watching more than four hours performed below the state level.

   - In every instance, students reporting that they did homework performed better than those reporting that they did not do homework.

8. For student populations with special learning characteristics (special education and compensatory education students), the performance on each objective was lower than those not participating in these programs.

GENERAL CONCLUSIONS, FIFTH GRADE

This assessment has identified specific areas of strengths and weaknesses in the progression of decision-making skills necessary in becoming consumers, producers, and informed voters.

In examining students' achievement of mastery, correct responses to items measuring those consumer-related objectives which deal with the differentiation between needs and wants and between quickly-consumed and longer-lasting goods were well within the general range of a large majority of fifth graders. However, the students did not perform as well when answering items which tested abstract concepts such as identifying examples of public and private property or those which required specialized knowledge, such as defining common economic terms.

Recently, a set of social studies objectives for Texas schools has been validated by a cross-section of citizens, educators and students. These objectives, which include elements of economics, coupled with these assessment data will provide invaluable information for program development.

RESULTS OF CRITERION REFERENCED TESTS IN ECONOMICS ADMINISTERED TO GRADE ELEVEN

This section contains the student performance results obtained from the administration of consumer, free enterprise, and general economics education tests to representative samples of eleventh grade students in Texas. Student performance results are reported as profiles of student mastery for each objective for the following student populations:

- total statewide population
- student subpopulations in geographic regions
- student subpopulations defined by single demographic characteristics such as ethnicity, sex, family income status, or language spoken in the home

The performance of student populations was analyzed by a combination of two characteristics such as sex and ethnicity or ethnicity and type of school district. Only one of these analyses, ethnicity and average grades, is reported here, as no consistent deviations from the performance patterns of populations defined by only one characteristic occurred on the other analyses. The other results are available as technical documentation from the Texas Education Agency.

Statewide Results—Grade 11

As shown in Figures 10, 11, 12, only two consumer objectives, one free enterprise objective, and one general economics objective were mastered by 90 percent or more students (Level I*). Results for another three or four objectives in each area were in the 75 to 89 percent range (Level II) while nearly half of the objectives on all three tests were mastered by fewer than 75 percent of the students (Level III). All four objectives, which were mastered by fewer than half the students, dealt with consumer issues, though one appeared on the general economics education test.

*See page 7 for a definition of the levels.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES

Statewide Results

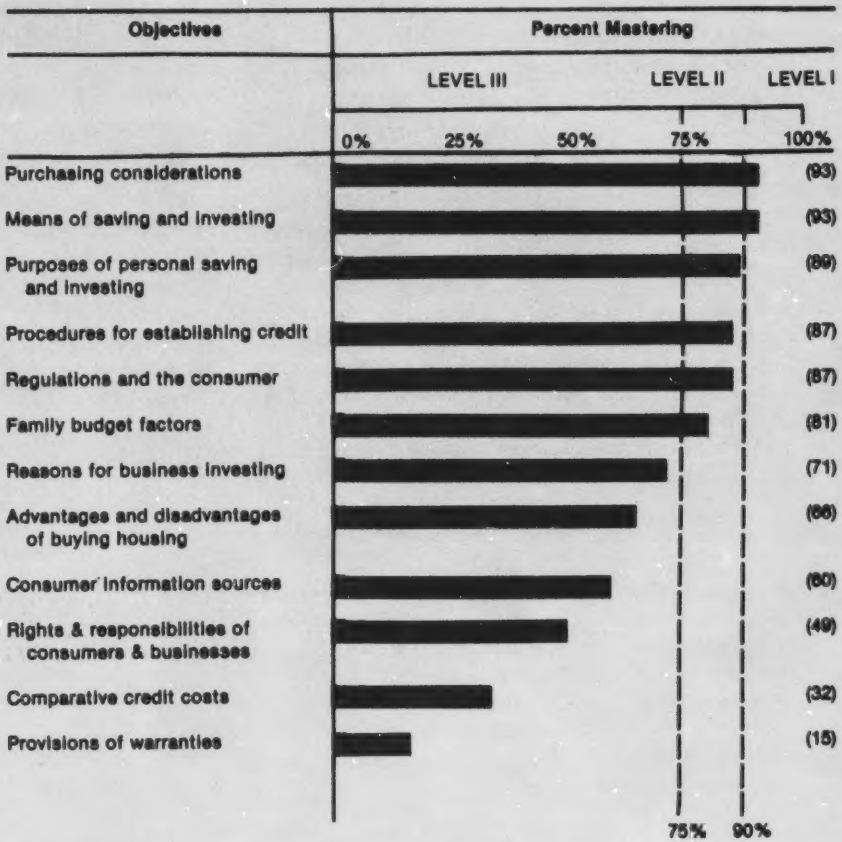


Figure 10

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING FREE ENTERPRISE EDUCATION OBJECTIVES

Statewide Results

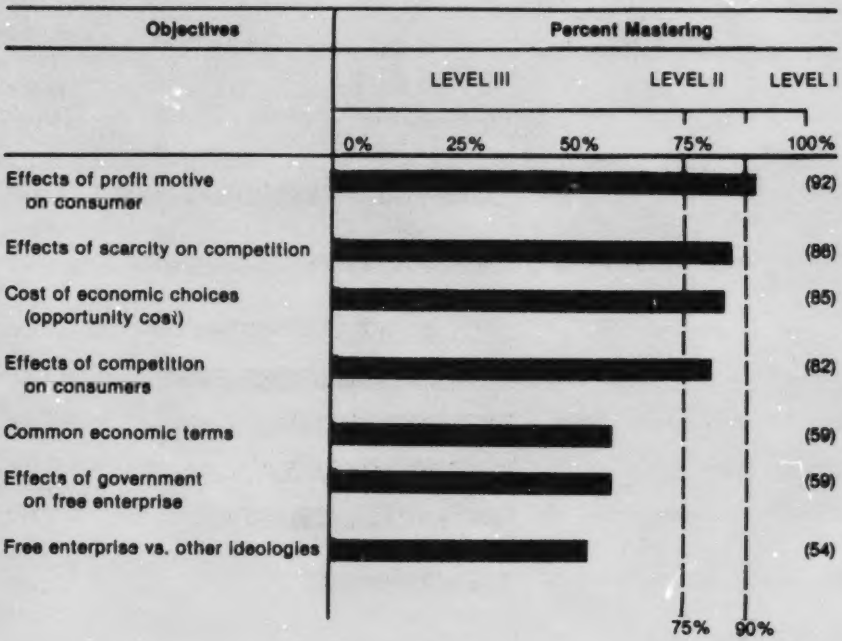


Figure 11

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES

Statewide Results

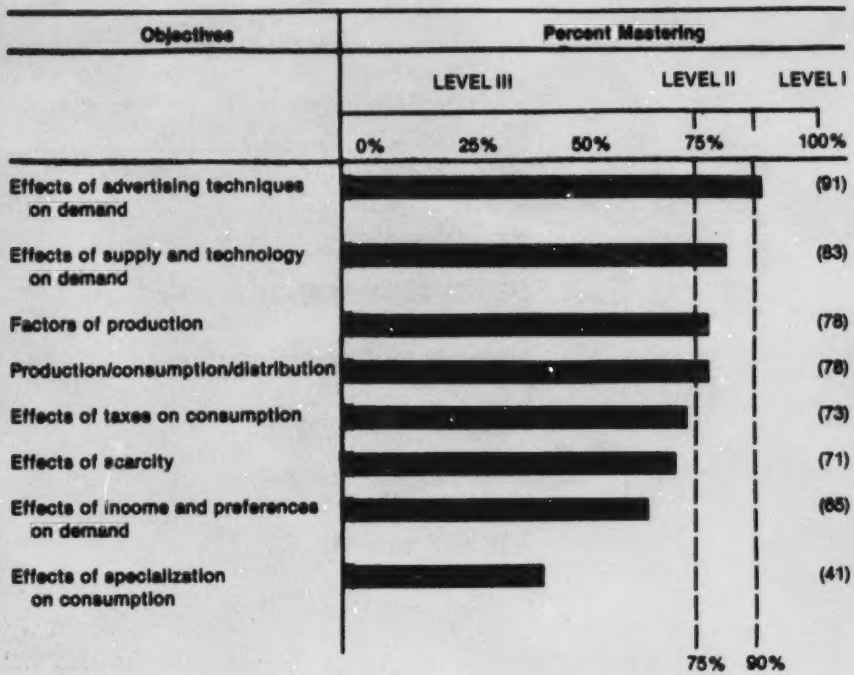


Figure 12

TABLE VI

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING A SPECIFIED NUMBER OF ECONOMICS EDUCATION OBJECTIVES

Consumer Education Objectives		Free Enterprise Education Objectives		General Economics Education Objectives	
Number of Objectives Mastered	Percent of Students Mastering	Number of Objectives Mastered	Percent of Students Mastering	Number of Objectives Mastered	Percent of Students Mastering
12 (All)	3%	7 (All)	27%	8 (All)	27%
At least 11	14%	At least 6	51%	At least 7	48%
At least 10	33%	At least 5	71%	At least 6	64%
At least 9	54%	At least 4	83%	At least 5	74%
At least 8	70%	At least 3	91%	At least 4	82%
At least 7	80%	At least 2	96%	At least 3	90%
At least 6	87%	At least 1	99%	At least 2	95%
At least 5	92%			At least 1	99%
At least 4	95%				
At least 3	97%				
At least 2	99%				
At least 1	99+ %				

Table VI shows the percentages of eleventh graders who mastered a given number of objectives on each of the three tests. While the different numbers of objectives covered by the three tests makes comparison somewhat difficult, it can be seen that about half of the objectives were mastered by 80 percent of the students.

Regional Results—Grade 11

Student performance data were collected and analyzed by the 20 geographic regions of the state, each served by an education service center (see page 12). Tables VII, VIII, and IX show student performance on each objective for each region. There was a wide range of mastery percentages among the individual objectives. Every region fell below 75 percent (Level III) on about one-third of the objectives. Performance of students in Region I was below the state level on most of the objectives on all three tests. Students in Region VIII performed below the state level on five of the eight general economics education objectives. Region XIII and XIV students performed above the state level on more than half of the free enterprise education objectives. Students in Region X performed above the state level on all objectives on the general economics education test.

TABLE VII
PERCENT OF ELEVENTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY REGION

Objectives		Statewide Results	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
Purchasing considerations		93	93	95	94	95	92	91	91	91	94	93	93	93	96*	96*	95	93	94	92	95	93
Means of saving and investing		93	90*	91	93	95*	93	93	90	89	94	94	95*	90*	94	94	94	91	93	93	92	91
Purposes of personal saving/investing		89	87	86	84*	91*	88	88	84*	82*	87	90	89	88	90	95*	92*	89	91	89	88	84*
Procedures for establishing credit		87	78*	84	86	90*	84	84	84	81*	93*	87	86	85	92*	92*	90	89	86	87	84	87
Regulations and the consumer		87	80*	86	85	91*	86	87	79*	82*	93*	87	88	89	90*	90	88	86	84	85	87	86
Family budget factors		81	70*	79	82	83	81	77	76*	76*	84	86*	81	79	87*	83	83	79	83	83	77*	81
Reasons for business investing		71	60*	66*	69	75*	71	63*	68	63*	70	75*	69	74	76	73	76	73	73	69	71	71
Advantages and disadvantages of buying housing		66	56*	61*	65	69	62	60	62	62	67	74*	66	61	66	67	66	68	60	63	65	65
Consumer information sources		60	51*	59	67*	62	60	65*	58	61	63	52*	60	64	62	68*	64	61	65	64	51*	65
Rights & responsibilities of consumers & businesses		49	33*	47	47	50	44	45	43*	41*	48	56*	47	44	55*	53	49	48	52	50	41*	53
Comparative credit costs		32	22*	34	33	31	39	29	26*	28	33	34	35	33	40*	35	35	34	29	28	32	33
Provisions of warranties		15	10*	16	17	17	14	14	12*	17	21*	16	20*	19	18	16	12	14	16	14	10*	11
STUDENT POPULATION TOTAL NUMBER (IN THOUSANDS)		204.5	8.9	7.8	4.2	40.7	7.5	6.1	8.8	3.9	3.3	28.2	17.6	7.3	10.7	3.4	3.2	5.7	6.0	5.1	7.8	17.5
Ethnic Proportions by Percent**	Black	14.4	0	4	11	23	26	19	24	26	6	20	11	18	9	6	3	4	9	6	3	6
	Mexican American	19.4	84	52	24	10	2	4	1	†	6	6	5	6	18	11	29	10	24	22	63	47
	Other***	66.2	16	43	64	67	72	77	75	73	87	74	84	75	72	83	67	87	67	72	34	47

*Indicates that the percentage figure is above or below the statewide percentage and the difference in the two is statistically significant.
**Percent figures do not equal 100% due to rounding.
***The other group is composed almost entirely of white students (more than 90%).
†Less than ½ percent.

TABLE VIII

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING FREE ENTERPRISE EDUCATION OBJECTIVES BY REGION

Objectives		Statewide Results	Education Service Center Regions																			
			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
Effects of profit motive on consumer		92	86*	86*	93	92	90	93	93	90	92	91	94	98*	92	95*	90	93	94	92	91	92
Effects of scarcity on competition		86	80*	84	86	86	85	86	87	86	86	83	86	88	90*	92*	86	91*	88	92*	86	86
Cost of economic choices (opportunity cost)		86	73*	81	83	86	86	80*	84	81	86	84	86	90*	91*	94*	82	87	83	87	86	87
Effects of competition on consumers		82	73*	82	82	81	82	81	84	76*	78	79	86	88*	89*	87*	82	86*	86	83	83	83
Common economic terms		59	52*	58	59	58	51*	55	60	52*	54	57	62	64	62	63	58	66*	58	57	63	65
Effects of government on free enterprise		59	59	54	59	63	54	58	60	50*	56	54	56	61	65*	64	60	59	60	56	62	62
Free enterprise vs. other ideologies		54	47*	48*	52	57	45*	49	54	48*	52	56	53	56	57	65*	53	60	53	60*	50	56
STUDENT POPULATION TOTAL NUMBER (IN THOUSANDS)		204.5	8.9	7.8	4.2	40.7	7.5	6.1	8.8	3.9	3.3	25.2	17.8	7.3	10.7	3.4	3.2	5.7	6.0	5.1	7.8	17.5
Ethnic Proportions by Percent**	Black	14.4	0	4	11	23	26	19	24	26	6	20	11	18	9	6	3	4	9	6	3	6
	Mexican American	19.4	84	52	24	10	2	4	1	†	6	6	5	8	18	11	29	10	24	22	63	47
	Other***	66.2	16	43	64	67	72	77	75	73	87	74	84	75	72	83	67	87	67	72	34	47

*Indicates that the percentage figure is above or below the statewide percentage and the difference in the two is statistically significant.

**Percent figures do not equal 100% due to rounding.

***The other group is composed almost entirely of white students (more than 98%).

†Less than ½ percent.

TABLE IX
PERCENT OF ELEVENTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY REGION

Education Service Center Regions

Objectives		Statewide Results	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
Effects of advertising techniques on demand		91	82*	91	90	91	90	90	89	86*	93	93*	94*	94	91	95*	93	93	90	90	89	92
Effects of supply and technology on demand		83	80	82	82	81	80	81	82	77*	83	86	86*	84	86	87	86	84	82	81	83	83
Factors of production		78	65*	76	80	76	77	77	75	72*	80	81	83*	81	82*	81	79	84*	77	79	77	74
Production/consumption/distribution		78	71*	74	73	76	79	77	76	71*	80	82	83*	83	81	82	77	84*	73*	75	75	75
Effects of taxes on consumption		73	67*	74	71	72	73	72	71	66*	71	75	79*	77	76	77	73	77	76	71	67*	72
Effects of scarcity		71	59*	69	67	66	70	68	69	65	74	76*	79*	71	79*	78*	76*	73*	69	69	62*	67
Effects of income and preferences on demand		65	53*	63	65	62	66	60	62	59	74*	71*	72*	66	66	65	69*	66	61	62	57*	59
Effects of specialization on consumption		41	30*	36	38	38	40	36	39	40	44	46*	47*	40	44	46*	40	47	44	44	36	34*
STUDENT POPULATION TOTAL NUMBER (IN THOUSANDS)		204.5	8.9	7.6	4.2	40.7	7.5	6.1	8.8	3.9	3.3	28.2	17.6	7.3	10.7	3.4	3.2	5.7	6.0	5.1	7.8	17.5
Ethnic Proportions by Percent**	Black	14.4	0	4	11	23	26	19	24	26	6	20	11	19	9	6	3	4	9	6	3	6
	Mexican American	19.4	84	52	24	10	2	4	1	†	6	6	5	8	18	11	29	10	24	22	63	47
	Other***	66.2	16	43	64	67	72	77	75	73	87	74	84	75	72	83	67	87	67	72	34	47

*Indicates that the percentage figure is above or below the statewide percentage and the difference in the two is statistically significant.
**Percent figures do not equal 100% due to rounding.
***The other group is composed almost entirely of white students (more than 99%).
†Less than ½ percent.

Results by Selected Subpopulations—Grade 11

Sex

As shown in Figures 13, 14, and 15, males and females performed almost equally on the consumer education test, while the males had slightly better percentages of mastery on the other two tests. The ranges of percentages of students mastering individual objectives was about the same for both sexes, but males had higher percentages of mastery on eleven objectives, and females had higher percentages on seven objectives.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES FOR MALES AND FEMALES

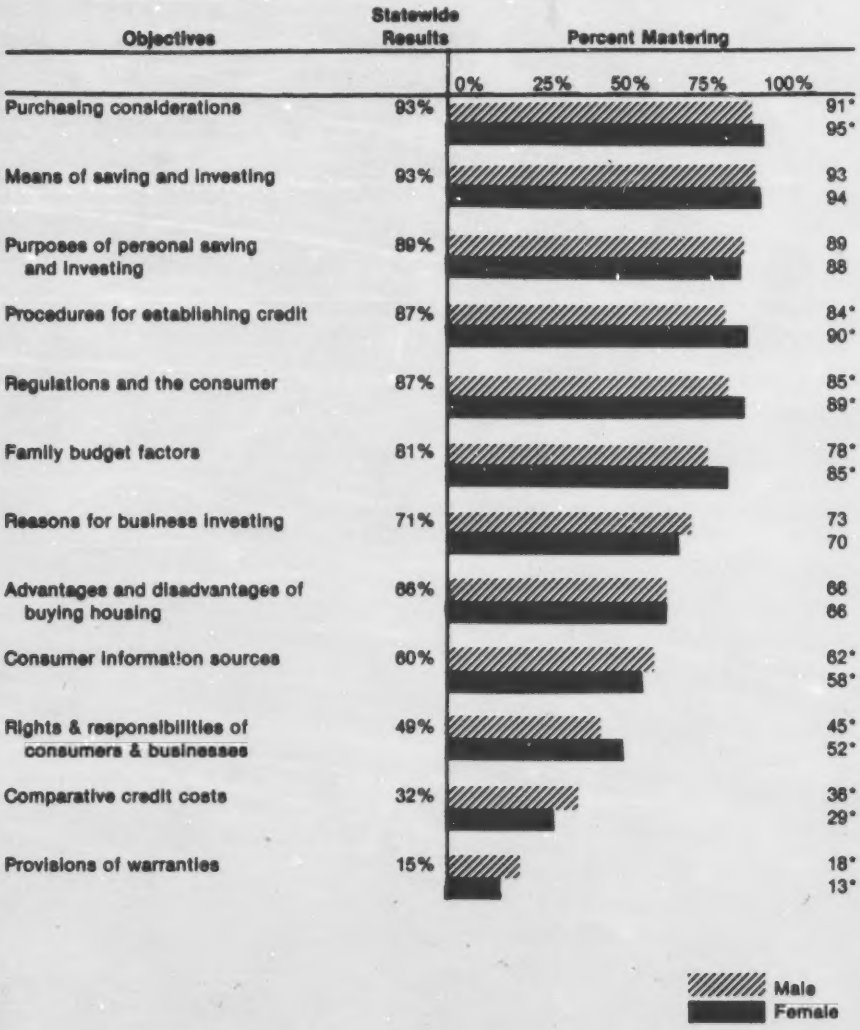


Figure 13

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING FREE ENTERPRISE EDUCATION OBJECTIVES FOR MALES AND FEMALES

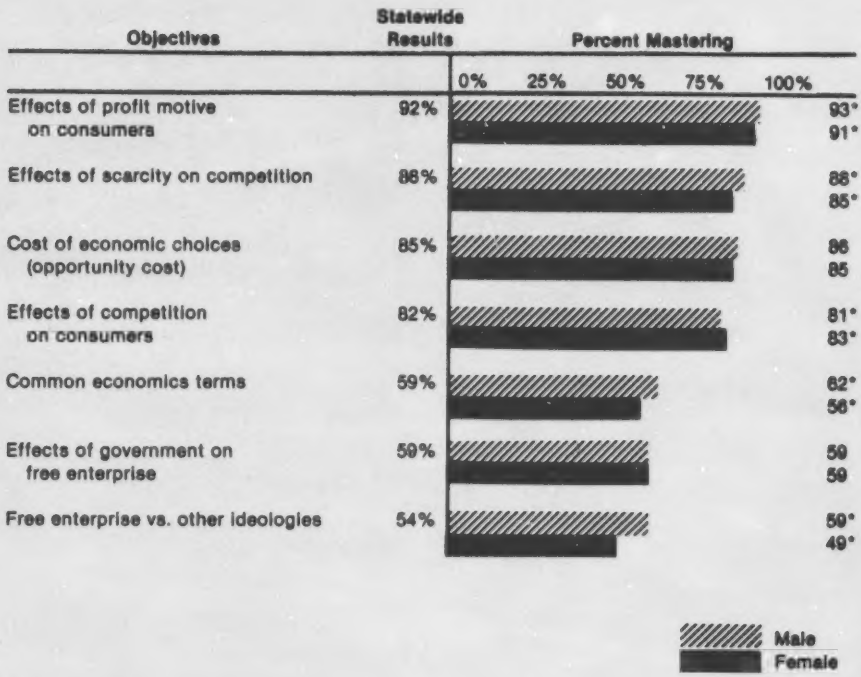


Figure 14

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES FOR MALES AND FEMALES

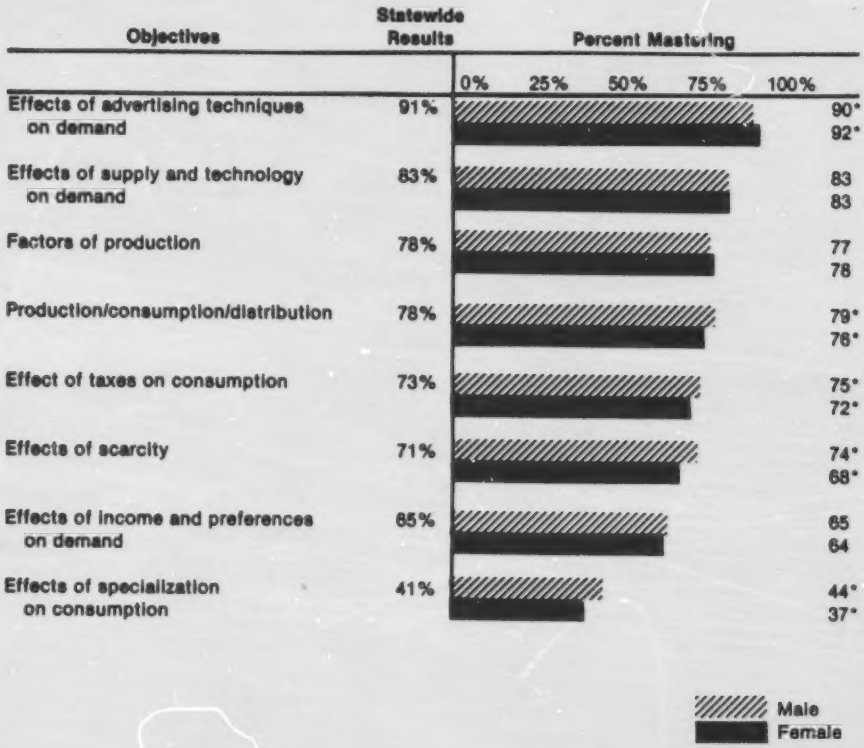


Figure 15

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

Ethnicity

The statewide proportions of eleventh grade students in each of the three ethnic groups are shown in Figure 16.

PROPORTION OF STUDENTS IN EACH ETHNIC CATEGORY AT THE ELEVENTH GRADE

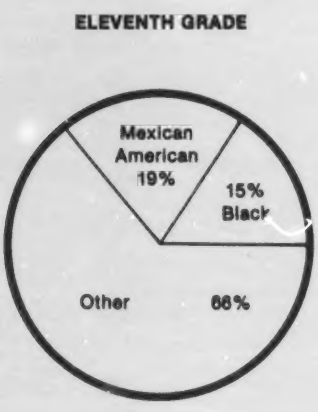


Figure 16

On each objective, the relative standing in terms of percent mastery was the same for all three ethnic groups on each test. Mexican American and black students performed below the state level on all objectives (see Figures 17, 18, and 19).

Viewing the three tests together, "other" students achieved mastery of 90% or higher on 9 of the 17 objectives (Level I). "Other" students mastered nine objectives at the 75 to 89 percent level (Level II) and nine objectives at the level below 75 percent (Level III).

Mexican American students attained mastery of 90 percent or higher on two objectives. Six objectives in the 75 to 89 percent range were mastered by Mexican American students. They performed below the 75 percent level on 19 objectives.

Black students mastered no objectives at the level of 90 percent or higher. They achieved mastery at the 75 to 89 percent level on five objectives and mastered 22 objectives below the 75 percent level.

A wide gap in performance occurred between "other" students and Mexican American and black students on *several* objectives. Percentages of mastery of objectives between "other" students and Mexican American and black students varied by 18 points or more on the following objectives:

- Identify advantages and disadvantages of home buying in terms of taxes, mortgages, and investments
- Identify the interrelationships of rights and responsibilities for consumers and businesses
- Distinguish among characteristics which are associated with a free enterprise system and those associated with other ideologies.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY ETHNIC GROUP

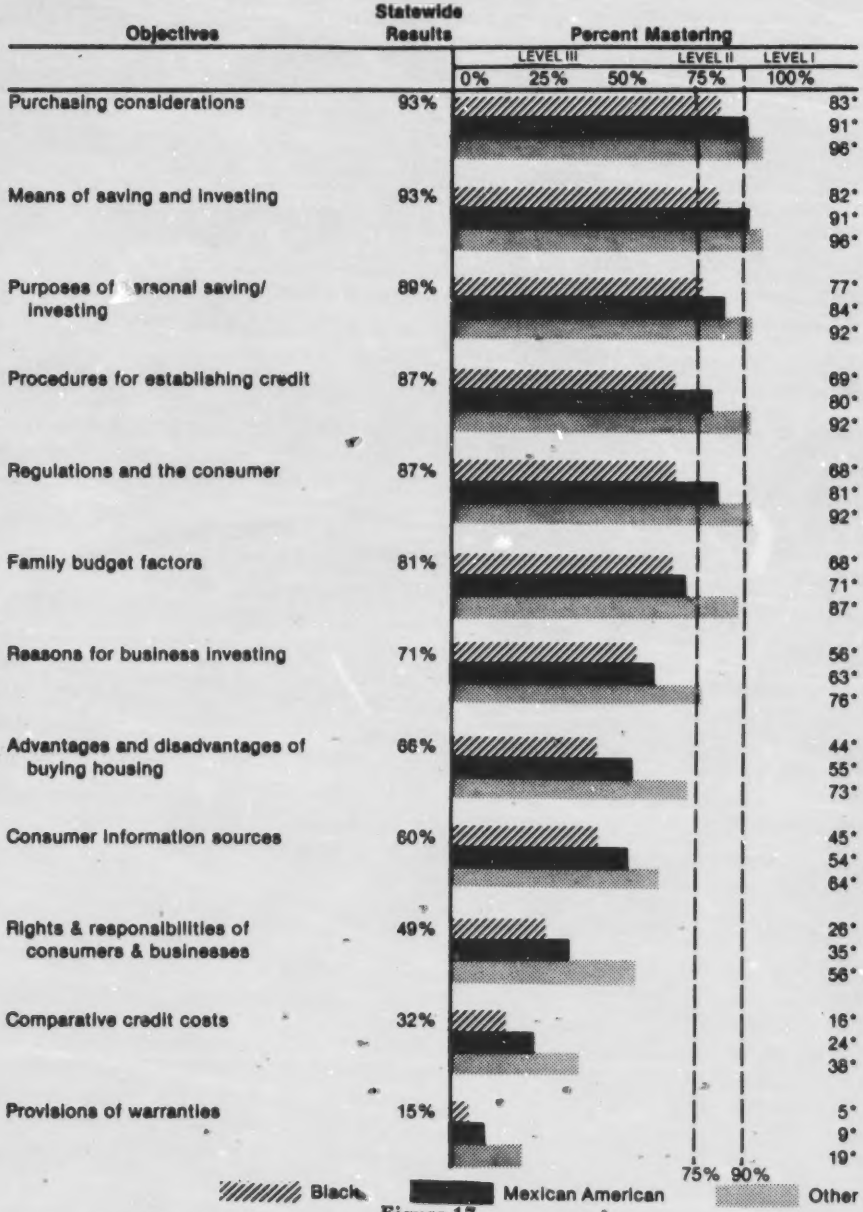


Figure 17

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING FREE ENTERPRISE EDUCATION OBJECTIVES BY ETHNIC GROUP

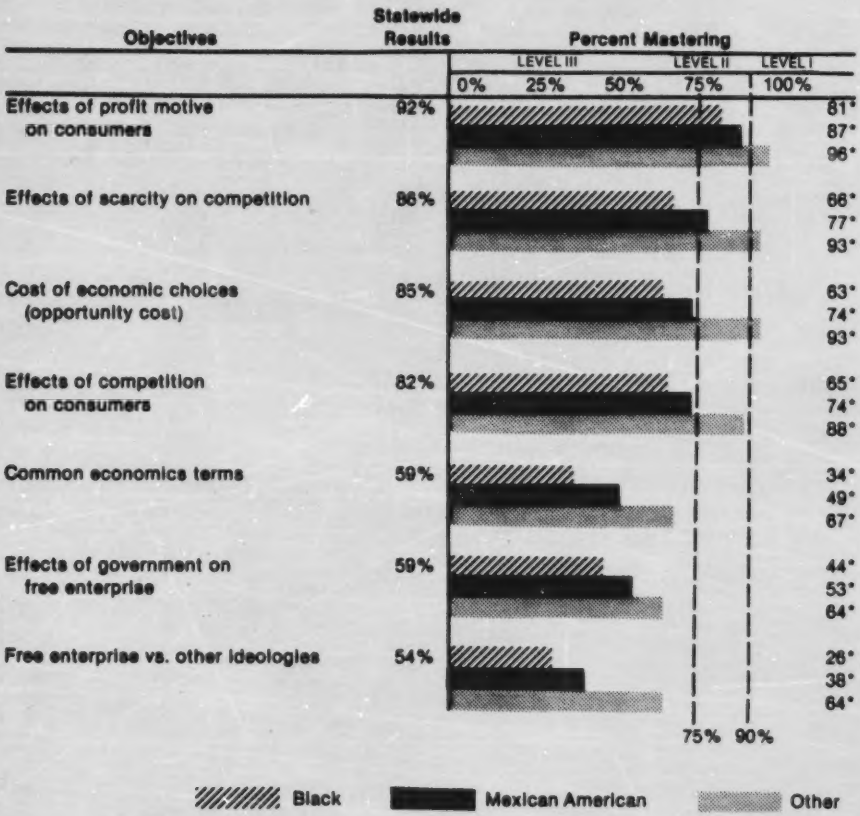


Figure 18

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY ETHNIC GROUP

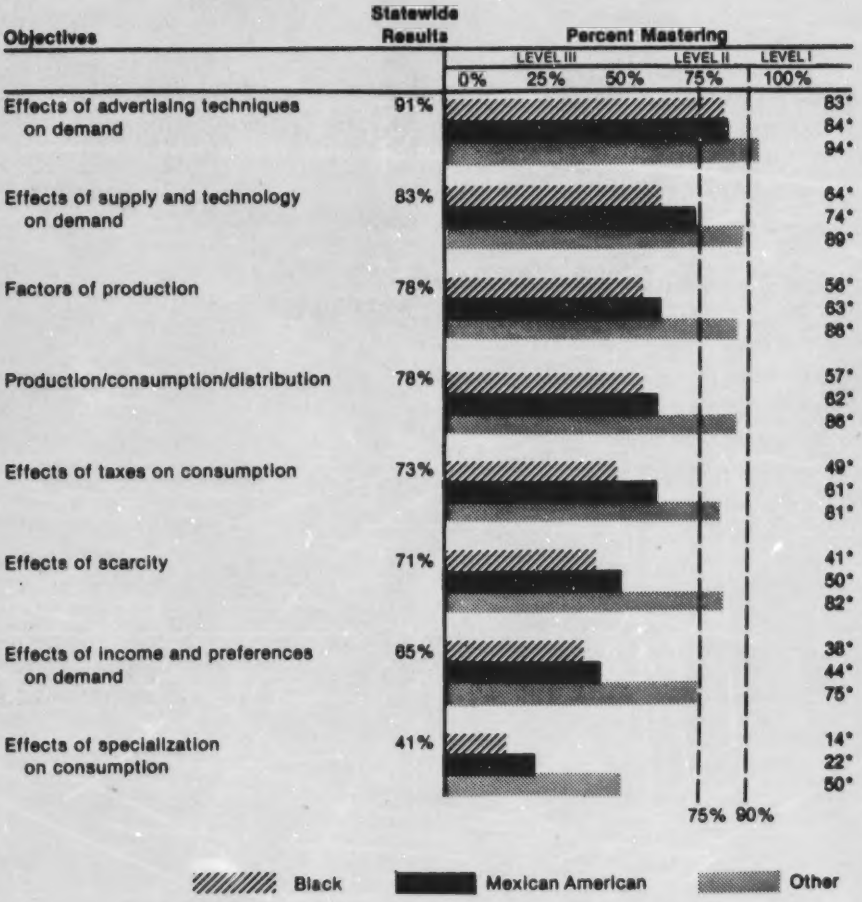


Figure 19

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

Type of School District

As shown in Tables X, XI, and XII, when performance was analyzed according to the type of school district in which the students were enrolled, the following patterns were observed. Students from schools in the fast-growing suburbs mastered every objective but one in higher percentages than the state. Students from schools in urban areas performed below the state levels on 19 of the 27 objectives.

Family Income

Differences in student performance were examined in light of students' family income level as determined by eligibility or non-eligibility for the National School Lunch Program. Students from families whose income was low enough to qualify had percentages below the state for each objective on all three tests. The converse was true for students whose family income level was high enough that they did not qualify for participation. The lower income students mastered no objectives at Level I and mastered only five at Level II. Results for the 22 remaining objectives for low income students were at Level III. The non-low income students mastered only six objectives at Level I. Nine of the objectives were mastered by non-low income students at Level II, and 12 objectives were mastered at Level III percentages. On most objectives, a wide gap was evidenced between mastery percentages of low and non-low income students.

Average Grades

Eleventh graders were asked to indicate the range of grades they usually received from their school work, so that performance on the consumer education, free enterprise education, and general economics education tests could be related to reported general performance in school. Students who reported that they usually made "A's" and those who reported making "mostly A's and B's" performed above the state level on all three tests on every objective. Students who reported making "mostly B's and C's" and those reporting "mostly C's and below" had mastery percentages below the state on all objectives on all three tests. Students who reported earning "mostly A's" mastered 16 of the objectives at Level I and performed at Level III for only three objectives. Students who reported earning "mostly C's and below" mastered only one objective at Level I and performed at Level III on two-thirds of the objectives.

Home Factors Related to Achievement in Economics

Eleventh graders were asked to provide information about home conditions believed to influence learning. Variables on which data were collected include: (1) language(s) spoken in the home, (2) reading materials in the home, (3) amount of time spent watching television, (4) amount of time spent on homework per week, (5) the educational level of their parents, and (6) the students' post-

high-school educational expectations. These characteristics cannot be regarded as having cause-and-effect relationships with the performance of students. However, they have typically been associated with consistent differences between high and low achievers. Performance of students on each objective is shown in Tables X, XI, and XII on pages 54 thru 59.

1. Language(s) Spoken in the Home
   Students from homes in which only English was spoken mastered five objectives at Level I, and those who reported using "only another language" mastered no objectives at Level I. The reverse pattern held for Levels II and III with the "only English" and "mostly English" groups mastering objectives at approximately the statewide percentages, while those using "mostly" or "only" another language at home had percentages of mastery at Level III on most of the objectives.

2. Reading Materials in the Home
   The mastery percentages of students who reported having all four types of reading materials available in the home were equal to or above the statewide levels on all objectives. This group of students mastered nine objectives at Level I and ten objectives at Level III.

   Performance of students who reported having only one type or no reading materials available in the home was significantly below the state percentages on all objectives. This group of students had percentages of mastery at Level I on 5 objectives and at Level II on 22 objectives. On most objectives, a wide disparity in mastery percentages existed between students reporting four types of reading materials available and those reporting having only one type or no reading materials available.

3. Time Reported Watching Television
   Students who reported watching one to two hours of television on the night before the test performed above the statewide percentages on most of the objectives and mastered five objectives at Level I.

   Students who reported watching more than four hours of television prior to the test scored significantly below the statewide percentage on all objectives. Students in this group performed at Level III on 18 objectives and at Level II on the remaining objectives; no objectives were mastered at Level I by this group. On 24 of the 27 objectives, as the amount of student time spent watching television was greater than two hours, student performance was lower.

4. Homework
   On all objectives but one, there was higher average student performance by students who reported spending more time on homework. Students who reported completing more than five hours of homework a week performed

above the state on all but one objective. Students in this group mastered seven objectives at Level I.

Students who reported that they did not do homework performed below the state on all but three objectives. Students in this group performed at Level I on only one objective. They performed at Level II on 10 objectives and at Level III on 16 objectives.

5. Educational Levels of Parents
Students whose parents had more than a high school education mastered each objective in greater percentages than the statewide averages. Students reporting that their parents had not attended high school had mastery percentages below the statewide averages on all of the objectives.

6. Educational Expectations of Students
Students who expected to attend a four-year college or graduate school had mastery percentages above the statewide averages on all of the objectives and performed at Level I on 10 objectives.

As a contrast, students who expected to complete only high school had mastery percentages below the statewide averages on all of the objectives and performed at Level III on 11 of the 27 objectives.

TABLE X
PERCENT OF ELEVENTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY REPORTING GROUPS

Objectives	Statewide Results	District Type							Family Income		Reading Materials				Homework			Home Language			
		Urban	Other Central City	Fast Growing Suburb	Stable Suburb	1000 ADA + Non-Metro	Town Non-Metro	Rural	Eligible Free/ Reduced Price	Not Eligible	None or one Type	Two Types	Three Types	All Four Types	Not Done	Less than 5 Hrs. per Wk.	Over 5 Hrs. per Wk.	English Only	Mostly English	Mostly Other Language	Other Language Only
Purchasing considerations	93	92*	93	95*	94	93	96	91	88*	94*	81*	87*	93	96*	86*	95*	95*	94*	95*	91	84*
Means of saving and investing	93	92	92	96*	93	91*	93	91*	85*	95*	82*	88*	91*	96*	91*	94*	94*	94*	93	88*	86*
Purposes of personal saving/investing	89	88	89	91*	88	87	89	85*	79*	90*	78*	80*	88	91*	82*	89	92*	90*	88	83*	78*
Procedures for establishing credit	87	84*	86	92*	87	85*	91*	83*	73*	89*	81*	79*	84*	92*	79*	86*	91*	89*	87	78*	69*
Regulations and the consumer	87	84*	87	92*	88	84*	87	84	74*	89*	86*	78*	85*	91*	81*	88*	90*	88*	87	79*	67*
Family budget factors	81	81	78*	85*	84	80	84	75*	69*	83*	80*	70*	77*	87*	73*	83*	85*	84*	79	69*	56*
Reasons for business investing	71	71	71	77*	73	67*	73	63*	58*	74*	52*	61*	68*	76*	66*	72	75*	73*	69	58*	58*
Advantages and disadvantages of buying housing	66	61*	66	74*	67	62*	66	61	50*	69*	47*	55*	60*	72*	61*	67	70*	68*	63	53*	47*
Consumer information sources	60	58*	59	64*	57	60	61	60	48*	62*	42*	51*	57	64*	56*	61	61	62*	55*	52*	47*
Rights & responsibilities of consumers & businesses	49	47	48	57*	51	43*	49	39*	30*	62*	22*	34*	43*	56*	36*	50	55*	52*	45*	31*	23*
Comparative credit costs	32	31	31	36*	31	29*	36	26*	19*	35*	15*	23*	29*	37*	30	33	35*	34*	28*	24*	20*
Provisions of warranties	15	12*	16	18*	13	15	18	15	7*	17*	7*	10*	14*	18*	16	17*	13*	17*	13*	9*	5*

*Indicates that the percentage figure is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING CONSUMER EDUCATION OBJECTIVES BY REPORTING GROUPS (Continued)

Objectives		TV Watching					Average Grades					Parental Education				Educational Expectations			
	Statewide Results	None	1-2 Hours	2-3 Hours	3-4 Hours	Over 4 Hours	Mostly A	Mostly A & B	Mostly B	Mostly B & C	Mostly C and Below	No High School	Some High School	High School Graduate	Post High School	High School Graduate	Voc./Tech. Trade	Junior College	4-Year Col. or More
Purchasing considerations	93	95*	94*	92	92	88*	97*	97*	97*	93	88*	89*	92	91*	97*	88*	95	93	97*
Means of saving and investing	93	94*	94	94	91	88*	97*	95*	95*	92*	90*	88*	89*	92	96*	88*	94	92	96*
Purposes of personal saving/investing	89	88	90*	89	89	85*	95*	94*	92*	86*	82*	83*	86	88*	93*	81*	90	87	93*
Procedures for establishing credit	87	89*	89*	87	82*	79*	97*	95*	91*	83*	75*	78*	80*	83*	94*	73*	86	86	93*
Regulations and the consumer	87	87	89*	87	80*	80*	97*	94*	90*	84*	76*	80*	82*	84*	93*	73*	89	84*	93*
Family budget factors	81	83	84*	79	78	74*	95*	90*	87*	78*	68*	73*	72*	79*	88*	67*	80	79	89*
Reasons for business investing	71	72	73	71	72	62*	83*	79*	75*	67*	62*	59*	64*	68*	79*	57*	72	68*	79*
Advantages and disadvantages of buying housing	66	69*	68*	64	58*	57*	79*	73*	69	61*	56*	58*	57*	64*	73*	54*	66	63	73*
Consumer information sources	60	59	62*	60	57	53*	70*	66*	63*	55*	52*	51*	56	57*	64*	52*	57*	55*	66*
Rights & Responsibilities of consumers & businesses	49	54*	51*	45*	40*	34*	76*	62*	51	40*	32*	30*	34*	42*	61*	30*	47	41*	60*
Comparative credit costs	32	34	36*	27*	28*	21*	55*	37*	36*	27*	21*	24*	21*	30*	39*	19*	34	27*	39*
Provisions of warranties	15	14	17*	17	15	9*	20*	18*	16	14*	11*	8*	14	14	19*	10*	16	14	18*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

TABLE XI
PERCENT OF ELEVENTH GRADE STUDENTS MASTERING FREE ENTERPRISE EDUCATION OBJECTIVES BY REPORTING GROUPS

Objectives	Statewide Results	District Type							Family Income		Reading Materials				Homework			Home Language			
		Urban	Other Central City	Fast Growing Suburb	Stable Suburb	1000 ADA + Non-Metro	Town Non-Metro	Rural	Eligible Free/ Reduced Price	Not Eligible	None or one Type	Two Types	Three Types	All Four Types	Not Done	Less than 5 hrs. per week	Over 5 hrs. per week	English Only	Mostly English	Mostly Other Language	Other Language Only
Effects of profit motive on consumer	92	90*	93	94*	92	91	91	91	81*	94*	76*	83*	92	95*	89*	92	95*	93*	91	87*	82*
Effects of scarcity on competition	86	81*	86	93*	83	86	86	82	66*	90*	66*	72*	82*	92*	82*	87	89*	89*	82*	76*	67*
Cost of economic choices (opportunity cost)	85	82*	85	92*	84	82*	83	79*	63*	89*	57*	75*	80*	91*	81*	86	89*	87*	83	73*	63*
Effects of competition on consumers	82	79*	83	87*	82	81	78	77*	63*	86*	62*	73*	77*	86*	75*	84*	86*	85*	80	69*	55*
Common economic terms	59	55*	61	68*	58	55*	55	51*	41*	62*	38*	48*	52*	66*	58	59	62*	62*	55*	42*	40*
Effects of government on free enterprise	59	58	61	63*	60	56	55	46*	45*	61*	43*	45*	54*	64*	51*	59	65*	61*	56*	50*	52
Free enterprise vs. other ideologies	54	49*	53	62*	55	52	49	45*	29*	56*	27*	37*	45*	63*	46*	54	61*	57*	51	33*	34*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING FREE ENTERPRISE EDUCATION OBJECTIVES BY REPORTING GROUPS (Continued)

Objectives	Statewide Results	TV Watching					Average Grades					Parental Education				Educational Expectations			
		None	1-2 Hours	3-3 Hours	3-4 Hours	Over 4 Hours	Mostly A	Mostly A&B	Mostly B	Mostly B&C	Mostly C and Below	No High School	Some High School	High School Graduate	Post High School	High School Graduate	Voc./Tech./ Trade	Junior College	4-Year Col. or More
Effects of profit motive on consumer	92	92	93	92	90	89*	96*	97*	93	90*	86*	83*	88*	91	96*	84*	92	93	95*
Effects of scarcity on competition	86	86	86*	87	84	77*	96*	94*	88	82*	76*	72*	80*	83*	93*	73*	87	85	92*
Cost of economic choices (opportunity cost)	85	86	87*	86*	80*	76*	96*	92*	90*	81*	75*	71*	78*	82*	93*	89*	85	84	92*
Effects of competition on consumers	82	83	85*	81	78*	73*	96*	90*	86*	79*	70*	67*	75*	78*	90*	89*	80	82	89*
Common economic terms	59	60	61*	57	56	54*	78*	70*	60	53*	46*	41*	48*	54*	69*	45*	58	54*	67*
Effects of government on free enterprise	59	59	62*	57	56	52*	77*	69*	61	53*	45*	50*	52*	52*	67*	43*	55*	55*	68*
Free enterprise vs. other ideologies	54	56	57*	54	46*	40*	81*	66*	55	46	36*	33*	37*	47*	66*	33*	50	45*	67*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

TABLE XII

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY REPORTING GROUPS

Objectives		District Type							Family Income		Reading Materials				Homework			Home Language			
	Statewide Results	Urban	Other Central City	Fast Growing Suburb	Stable Suburb	1000 ADA + Non-Metro	Town Non-Metro	Rural	Eligible Free/ Reduced Price	Not Eligible	None or One Type	Two Types	Three Types	All Four Types	Not Done	Less than 5 hrs. per week	Over 5 hrs. per week	English Only	Mostly English	Mostly Other Language	Other Language Only
Effects of advertising on demand	91	89*	89	95*	91	89*	90	92	80*	93*	76*	84*	89*	94*	86*	91	94*	93*	90	83*	75*
Effects of supply and technology on demand	83	80*	82	88*	85	80*	81	82	71*	85*	66*	72*	79*	88*	76*	83	86*	85*	83	75*	63*
Factors of production	78	73*	74*	85*	79	77	75	78	61*	81*	52*	63*	72*	85*	72*	78	83*	81*	74*	67*	51*
Production/consumption/distribution	78	73*	79	85*	79	74*	76	76	59*	81*	49*	61*	72*	85*	68*	77	85*	81*	74*	63*	54*
Effects of taxes on consumption	73	70*	73	79*	72	71*	70	76	59*	76*	58*	59*	68*	80*	65*	73	80*	76*	70	58*	53*
Effects of scarcity	71	63*	66	79*	73	67*	72	72	48*	74*	39*	51*	62*	80*	64*	70	76*	75*	63*	50*	41*
Effects of income and preferences on demand	65	58*	62	72*	66	61*	65	67	44*	69*	39*	47*	58*	73*	60*	63	72*	69*	56*	48*	37*
Effects of specialization on consumption	41	35*	41	48*	42	35*	39	39	19*	44*	19*	25*	31*	49*	34*	39	47*	44*	32*	28*	13*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

PERCENT OF ELEVENTH GRADE STUDENTS MASTERING GENERAL ECONOMICS EDUCATION OBJECTIVES BY REPORTING GROUPS (Continued)

Objectives		TV Watching					Average Grades					Parental Education				Educational Expectations			
	Statewide Results	None	1-2 Hours	2-3 Hours	3-4 Hours	Over 4 Hours	Mostly A	Mostly A&B	Mostly B	Mostly B&C	Mostly C and Below	No High School	Some High School	High School Graduate	Post High School	High School Graduate	Voc./Tech./ Trade	Junior College	4-Year Col. or More
Effects of advertising techniques on demand	91	92	92	91	90	86*	96*	95*	93*	88*	85*	86*	88*	91	94*	84*	91	92	94*
Effects of supply and technology on demand	83	85	84	85	83	72*	96*	92*	87*	80*	68*	78*	74*	80*	91*	69*	82	79*	91*
Factors of production	78	79	79	79	78	67*	93*	88*	84*	73*	61*	64*	69*	76	86*	65*	77	70*	86*
Production/consumption/distribution	78	80	79*	78	74	69*	95*	88*	83*	72*	63*	64*	66*	74*	86*	59*	76	72*	86*
Effects of taxes on consumption	73	76*	76*	74	68*	61*	92*	84*	78*	96*	59*	61*	63*	70*	82*	58*	71	68*	83*
Effects of scarcity	71	74*	72*	71	70	55*	93*	82*	78*	62*	55*	52*	57*	65*	84*	50*	69	63*	82*
Effects of income and preferences on demand	65	68*	67*	64	58*	48*	88*	75*	69*	58*	48*	49*	50*	60*	78*	47*	61	56*	75*
Effects of specialization and consumption	41	43	43*	40	34*	28*	69*	51*	44	32*	25*	25*	24*	34*	53*	22*	34*	30*	54*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

Comparison of Performance Scores by Selected Subpopulations

As indicated earlier, student performance was examined for various subpopulation groups defined by two demographic variables using a "performance score". (See p. 91 for a definition of performance score.)

The analyses conducted were as follows:

- Ethnicity by district type
- Ethnicity by sex of student
- Family income level by district type
- Family income level by ethnicity
- Reading materials index by ethnicity
- Family income by reading materials index
- Homework time per week by sex of student
- Ethnicity by homework time per week
- Family income level by homework time
- Sex of student by average grades reported
- Ethnicity by average grades reported
- Family income level by average grades reported
- Average grades reported by reading materials index
- Average grades reported by homework time per week
- Parents' education level by sex of student
- Parents' education level by ethnicity
- Parents' education level by family income level

Only the cross-classification of ethnicity and average grades is reported here as no consistent deviations from the patterns of student performance defined by only one characteristic were found.

Ethnicity by Average Grades

The scores of "other" students were higher than those of black and Mexican American students for each level of grades on all three tests. "Other" students who reported making "mostly C's and below" scored higher than black students making "mostly A's and B's" on all three tests. The scores of Mexican American students making "mostly A's and B's" were approximately the same as those of "other" students making "mostly B's and C's" on all three tests. Figure 20 shows student performance by ethnicity and average grades.

GRADE ELEVEN
PERFORMANCE SCORES
BY ETHNICITY AND BY AVERAGE GRADES

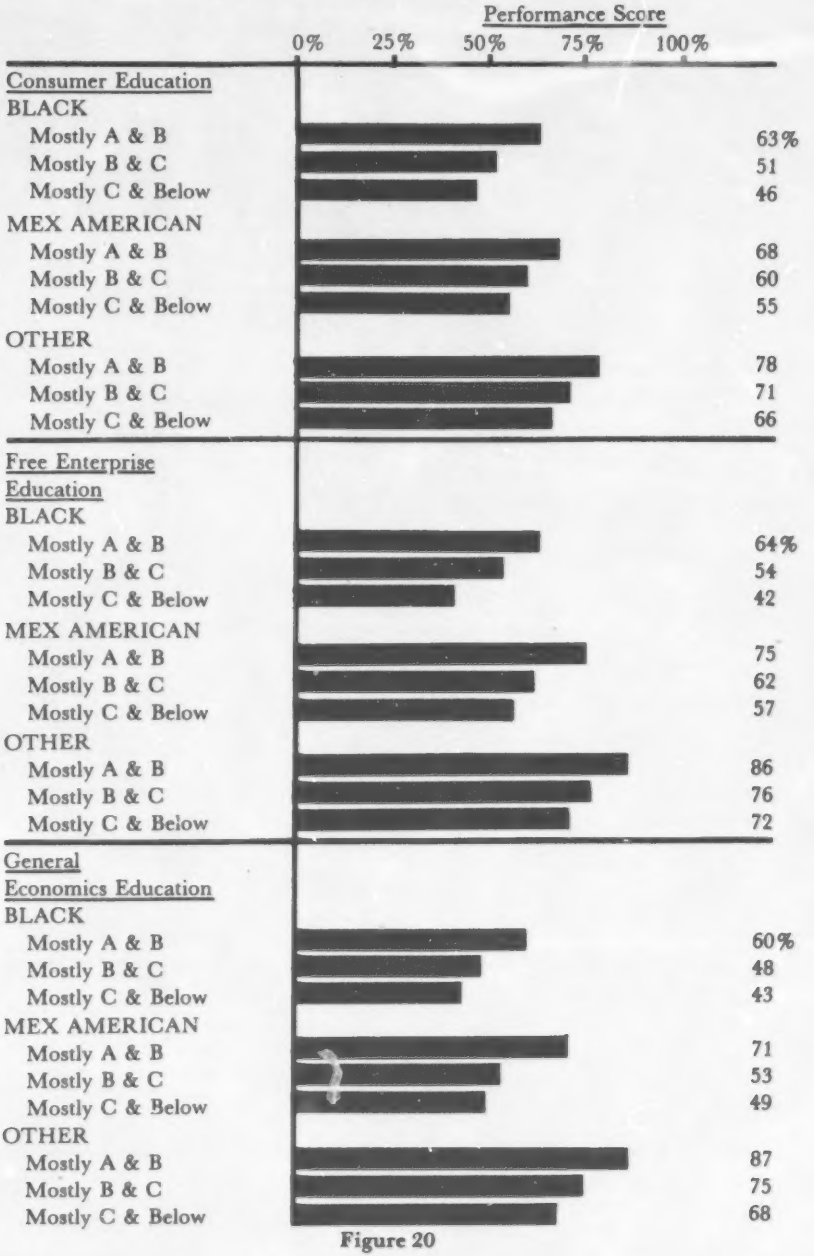


Figure 20

Summary of Findings, Grade 11 Student Performance

1. More than half of Texas eleventh graders mastered:

   - nine of the twelve consumer education objectives
   - six of the seven free enterprise education objectives
   - six of the eight general economics education objectives

2. More than 80 percent of the students mastered at least half of the objectives on all three tests.

3. Regional performance was similar to statewide results for most of the objectives. Regions XIII and XIV had performance at 90 percent or greater on one-third or more of the objectives.

4. The performance of male students was generally higher than that of female students. Males performed better on 16 of the 27 objectives, females performed better on nine, and there was no difference on two. On the consumer education test, males and females performed about the same, while males performed somewhat better than females on the free enterprise education and general economics education tests.

5. When performance was analyzed by type of school district, students in suburban school districts performed highest on all three tests. Students in urban and rural districts performed least well.

6. The objectives on which eleventh grade students performed least well were:

   Consumer education—

   - Reasons for investing in business
   - Advantages and disadvantages in buying housing
   - Consumer information sources
   - Rights and responsibilities/consumers and businesses
   - Comparative credit costs
   - Provisions of warranties

Free Enterprise education—

- Common economic terms
- Effects of government on free enterprise
- Free Enterprise vs. other ideologies

General Economics education—

- Effects of taxes on consumption
- Effects of scarcity
- Effects of income and preference on demand
- Effects of specialization on consumption

These objectives were mastered by 75 percent or less of Texas students.

7. For all of the objectives on the three tests, the performance of Mexican American students was below that of "other" students. Similarly, the performance of black students was below that of Mexican American students on 24 of the 27 objectives.

8. Students with few or no reading materials in their homes performed less well than did students who had more types of reading materials available.

9. Students who reported spending five hours or more per week on homework performed better than students who reported completing less homework.

10. Students who came from homes where a language other than English was spoken all of the time performed less well than students who came from homes where English was spoken all or most of the time.

11. Students who reported watching more than four hours of television daily performed less well than did students who reported watching two hours or less.

12. Students from low income families performed less well on all of the economics objectives than did students who were not from low income families.

13. Students who reported earning mostly A's and B's performed better than students earning lower grades.

14. Students reporting higher levels of parental education performed better than students whose parents had less education.

15. Students who were identified by school officials as participating in compensatory education performed significanly lower than did students not participating in this program. Students who were identified by school officials as participants in special education demonstrated the lowest levels of mastery of all subpopulation groups.

GENERAL CONCLUSIONS, ELEVENTH GRADE

Test results indicated both strengths and weaknesses in all three areas of economics education. The objectives dealing with purchasing considerations and means of saving and investing were mastered by larger percentages of students than any other objective. Those objectives which dealt with concepts likely to be least familiar to eleventh graders ("comparative credit costs" and "provisions of warranties") were mastered by the lowest percentages of students.

As is evidenced from the test results, Texas eleventh graders are receiving instruction—both from their school classes and from their daily experiences—in the various facets of economics education. Continuing instruction in economics, based on the set of recently developed social studies objectives, is essential if students are to become informed consumers, producers, and voters. The information gathered from this assessment is valuable in pinpointing the strengths and weaknesses of Texas eleventh graders and in identifying the areas in which intensified instruction should occur.

INFORMATION ABOUT HIGH SCHOOL PROGRAMS IN ECONOMICS EDUCATION

Information concerning high school programs in economics education was collected from two sources—principals of high schools where assessment testing was conducted and eleventh grade students who completed one of the economics education tests.

- Principal's Questionnaire—The principal of each high school in which eleventh grade students were tested during the 1979 statewide assessment was asked to respond to a questionnaire about various aspects of the school's instructional programs for consumer education, free enterprise education, and general economics education. Information was gathered in three areas:

  - Implementation efforts of the school
  - Sources of staff training and information
  - Kinds of materials used by teachers

Principals' responses were aggregated to provide information on statewide and regional levels about the extent to which economics education had been implemented in Texas high schools. Information about individual campuses or school districts was not accumulated and is not available. It is important to note that the information presented reflects principals' perceptions of their schools' efforts.

Responses to Principal's Questionnaire about Economics Education Programs

1. Consumer Education

   The percentages of principals responding to questions regarding implementation of consumer education in the high schools are shown in Figures 21, 22 and 23. Eighty-nine percent of the principals reported that students in their schools were receiving instruction in consumer education, 81 percent indicated that curricular support materials had been provided to teachers, and 81 percent indicated that concepts and competencies have been taught by teachers of various required or elective courses (See Figure 21).

   District-wide, campus, and regional inservice training for teachers were each identified by less than half of the principals as a source of staff training and information for consumer education. The main source of staff training

and information was viewed as teacher-initiated personal reading and research by 69 percent of the principals (See Figure 22).

The majority of the principals (71 percent or more) identified each of the five kinds of consumer education materials shown in Figure 23 as being used by teachers for instructing consumer education.

Only one-fourth of the principals reported having conducted an assessment of student achievement in consumer education in the last two years.

PERCENTAGES OF HIGH SCHOOL PRINCIPALS RESPONDING AFFIRMATIVELY TO QUESTIONS RELATED TO IMPLEMENTATION OF CONSUMER EDUCATION

	Implementation Questions	Percent Responding Affirmatively
1.	Are students in your school receiving instruction in consumer education?	89
2.	Have teachers in your school been provided any special inservice training?	45
3.	Have curricular support materials been provided to teachers?	81
4.	Has an assessment of student achievement been conducted in the last two years?	25
5.	Has your school developed and offered one or more special courses?	49
6.	Have concepts and competencies been taught by teachers of various required or elective courses	81

Figure 21

PERCENTAGES OF HIGH SCHOOL PRINCIPALS IDENTIFYING SOURCES OF STAFF TRAINING AND INFORMATION FOR CONSUMER EDUCATION

	Sources of Training/Information	Percent Identifying
1.	District-wide inservice	30
2.	Campus inservice	23
3.	Regional inservice or technical assistance	41
4.	College and university courses	27
5.	Personal reading and research (teacher initiated)	69

Figure 22

PERCENTAGES OF HIGH SCHOOL PRINCIPALS IDENTIFYING KINDS OF INSTRUCTIONAL MATERIALS USED BY TEACHERS FOR INSTRUCTING CONSUMER EDUCATION

	Kinds of Materials	Percent Identifying
1.	Commercially prepared materials purchased by the district	68
2.	Materials given free by businesses and other groups	79
3.	Materials from libraries, education service centers, or similar sources	83
4.	Teacher-made materials	75
5.	State-adopted textbooks	71

Figure 23

2. Free Enterprise Education

Figure 24 shows the percentages of positive responses from principals regarding implementation of free enterprise education in Texas high schools. Ninety-five percent of the principals indicated that students in their schools were receiving instruction in free enterprise, 90 percent indicated that curricular support materials had been provided to teachers, and 83 percent indicated that concepts and competencies had been taught in various required or elective courses.

Sources of free enterprise training and/or information for teachers are shown in Figure 25. Seventy-nine percent of the principals reported that district-wide or campus level teacher inservice training and personal reading and research were sources of training and information for free enterprise education.

Figure 26 shows the percentages of principals identifying various kinds of instructional materials for free enterprise education used by teachers. The majority of principals, 64 percent or more, identified each of the five kinds of materials shown as being used to teach free enterprise in their schools.

Only 27 percent of the principals reported conducting a student assessment in free enterprise education during the past two years.

PERCENTAGES OF HIGH SCHOOL PRINCIPALS RESPONDING AFFIRMATIVELY TO QUESTIONS RELATED TO IMPLEMENTATION OF FREE ENTERPRISE EDUCATION

	Implementation Questions	Percent Responding Affirmatively
1.	Are students in your school receiving instruction in free enterprise education?	95
2.	Have teachers in your school been provided any special inservice training?	53
3.	Have curricular support materials been provided to teachers?	90
4.	Has an assessment of student achievement been conducted in the last two years?	27
5.	Has your school developed and offered one or more special courses?	57
6.	Have concepts and competencies been taught by teachers of various required or elective courses?	83

Figure 24

PERCENTAGES OF HIGH SCHOOL PRINCIPALS IDENTIFYING SOURCES OF STAFF TRAINING AND INFORMATION FOR FREE ENTERPRISE EDUCATION

	Sources of Training/Information	Percent Identifying
1.	District-wide inservice	36
2.	Campus inservice	27
3.	Regional inservice or technical assistance	52
4.	College and university courses	36
5.	Personal reading and research (teacher initiated)	79

Figure 25

PERCENTAGES OF HIGH SCHOOL PRINCIPALS IDENTIFYING KINDS OF INSTRUCTIONAL MATERIALS USED BY TEACHERS FOR INSTRUCTING FREE ENTERPRISE EDUCATION

	Kinds of Materials	Percent Identifying
1.	Commercially prepared materials purchased by the district	64
2.	Materials given free by businesses and other groups	82
3.	Materials from libraries, education service centers, or similar sources	88
4.	Teacher-made materials	73
5.	State-adopted textbooks	74

Figure 26

3. General Economic Education

Principals' responses to questions concerning general economics education are shown as percentages for each question in Figures 27, 28, and 29. More than two-thirds of the principals reported that students were receiving instruction in general economics education (69 percent), and that concepts and competencies have been taught by teachers of various required and elective courses (67 percent). See Figure 27.

District-wide, campus, and regional inservice training were each identified by less than 30 percent of the principals as being a source of staff training and information for general economics education. A majority of the principals (52 percent) indicated that teacher-initiated personal reading and research was a source of training and information. See Figure 28.

Approximately half of the principals indicated that each of the five kinds of general economics education materials described in Figure 29 as being used by teachers for instructional programs.

Only 21 percent of the principals reported conducting a student assessment in general economics education in the last two years.

PERCENTAGES OF HIGH SCHOOL PRINCIPALS RESPONDING AFFIRMATIVELY TO QUESTIONS RELATED TO IMPLEMENTATION OF GENERAL ECONOMICS EDUCATION

	Implementation Questions	Percent Responding Affirmatively
1.	Are students in your school receiving instruc-in general economics education?	69
2.	Have the teachers in your school been provided any inservice training?	31
3.	Have curricular support materials been provided to teachers?	57
4.	Has an assessment of student achievement been conducted in the last two years?	21
5.	Has your school developed and offered one or more special courses?	34
6.	Have concepts and competencies been taught by teachers of various required or elective courses	67

Figure 27

PERCENTAGES OF HIGH SCHOOL PRINCIPALS IDENTIFYING SOURCES OF STAFF TRAINING AND INFORMATION FOR GENERAL ECONOMICS EDUCATION

	Sources of Training/Information	Percent Identifying
1.	District-wide inservice	21
2.	Campus inservice	17
3.	Regional inservice or technical assistance	27
4.	College and university courses	24
5.	Personal reading and research (teacher initiated)	52

Figure 28

PERCENTAGES OF HIGH SCHOOL PRINCIPALS IDENTIFYING KINDS OF INSTRUCTIONAL MATERIALS USED BY TEACHERS FOR INSTRUCTING GENERAL ECONOMICS EDUCATION

	Kinds of Materials	Percent Identifying
1.	Commercially prepared materials purchased by the district	46
2.	Materials given free by businesses and other groups	56
3.	Materials from libraries, education service centers, or similar sources	62
4.	Teacher-made materials	51
5.	State-adopted textbooks	56

Figure 29

SUMMARY OF INFORMATION FROM PRINCIPALS AND STUDENTS

Principals in high schools participating in the 1979 assessment responded to questions about instructional programs in economics education. Questions related to implementation efforts of the school, staff training, and instructional materials.

- The majority of principals indicated that students in their schools were receiving instruction in consumer education (89 percent), free enterprise (95 percent) and general economics education (69 percent). The majority also indicated that concepts and competencies for these three areas had been taught by teachers of various required or elective courses.

- Teacher-initiated reading and research was identified by more than half of the principals as the source of staff training and information (69 percent for consumer education, 79 percent for free enterprise education, and 52 percent for general economics education). Teacher-initiated reading and research was found to be the main source of staff training and information.

- The kinds of instructional materials available to teachers for all three economics areas identified by the highest percentages of principals were materials from libraries, education service centers, or similar sources and materials given free by businesses and other groups.

- As reported by principals, student assessments in the three areas of economics were conducted by less than one-third of the schools in the past two years.

Eleventh grade students were asked to indicate the value of various high school courses in answering questions on the three economics tests.

- Fundamentals of the Free Enterprise System was selected as being helpful in taking the three tests by higher percentages of students than any other course.

- Fifty percent or more of the students responding identified 13 or more of the 21 courses listed as being helpful on each of the three tests.

Special Questions for Students

Eleventh grade students taking each of the three tests in economics education were asked to identify specific courses which they had taken in high school and to indicate whether the courses were helpful to them in answering questions on the particular test they completed.

Table XIII shows the percentages of eleventh grade students who reported taking each course and the percentages of those students taking each course who found the course to be helpful in completing one of the three economics tests. It should be noted that each of the three tests was completed by different students. No student took more than one test.

The courses taken most frequently were, as expected, those required for graduation. For example, American History was reported to have been taken or was being taken by 94 percent of the students and World History by 83 percent. Elective courses related to economics and consumer education were reported as being taken by relatively low percentages of the students. For example, five percent of the students reported taking Business Management, eight percent reported taking Business Mathematics, and eight percent reported taking Fundamentals of the Free Enterprise System.

Fifty percent or more of the students taking the free enterprise education test reported that 13 of the 21 courses were helpful to them in taking the test. Of those taking the consumer education test, 50 percent or more indicated that 15 of the 21 courses were helpful. Fifth percent or more of the students taking the general economics test found 14 of the 21 courses helpful.

The single course found to be helpful to the highest percentage of students taking the free enterprise and general economics tests was Fundamentals of the Free Enterprise System. Business Law was the course found to be helpful by the largest percentage of students taking the consumer education test.

The percentage of students identifying each of the courses as helpful on the three economics tests did not vary greatly in most instances. There were some predictable differences. For example, of the students taking Homemaking, 59 percent found it helpful in taking the consumer education test, while only 38 percent of those taking the free enterprise education test found Homemaking to be helpful. Students taking World History found that course more helpful in completing the free enterprise test (53 percent) than did students taking the consumer education test or the general economics test, where only 23 percent and 35 percent respectively found World History to be helpful.

The courses rated as helpful by two-thirds of eleventh graders were:

- Fundamentals of the Free Enterprise System
- Economics
- Personal Business Management
- Business Law
- Business Management
- Consumer Education
- Distributive Education

PERCENTAGES AND NUMBERS OF ELEVENTH GRADE STUDENTS TAKING SPECIFIED COURSES AND THE PERCENTAGES OF STUDENTS FINDING EACH COURSE HELPFUL IN COMPLETING THE THREE ECONOMICS TESTS

Course Name	Percent & Number of Students Taking Course		Helpful for Consumer Education	Helpful for Free Enterprise	Helpful for General Economics
Fundamentals of the Free Enterprise System	(8%)	*13,526	80%[2]	87%[1**]	82%[1]
Mathematics of Consumer Education	(18)	32,316	65	49	57
Fundamentals of Mathematics	(45)	81,395	45	33	39
Economics	(11)	19,167	73	77 [2]	73 [3]
American History	(94)	168,803	30	59	43
World History	(83)	148,844	23	53	35
Government	(19)	34,027	52	73 [3]	60
World Geography	(31)	54,958	17	33	26
Personal Business Management (General Business)	(14)	25,271	80 [3]	73 [4]	72 [4]
Business Mathematics	(8)	14,968	58	40	53
Business Law	(5)	8,844	84 [1]	65	67

Continued

Course Name	Percent & Number of Students Taking Course		Helpful for Consumer Education	Helpful for Free Enterprise	Helpful for General Economics
Business Management	(5)	8,979	67	66	71 [5]
Homemaking	(39)	70,088	59	38	48
Consumer Education	(8)	15,189	77 [4]	76 [3]	74 [2]
Agriculture	(12)	20,613	43	57	60
CVAE (Coordinated Vocational Academic Education)	(5)	9,062	51	50	54
DE (Distributive Education)	(7)	11,883	75 [5]	72	71
Health Occupations	(25)	45,331	52	33	34
Industrial Occupations	(7)	13,317	50	48	47
Industrial Arts	(19)	33,227	21	26	30
VOE (Vocational Office Education)	(7)	12,025	64	52	56

*Estimated numbers of Texas eleventh graders who have taken or are taking the various courses listed.
**NOTE: Superscript indicates rank order of percent of students reporting the course to be helpful.

Figure 30

APPENDIX A
DEFINITIONS OF
REPORTING GROUPS

GROUP LABEL	CATEGORY TITLE-NUMBER OF GROUPS Group Definition-SOURCE of Data
	ESC REGIONS-20
REGION I • • • REGION XX	Geographic regions served by education service centers. SOURCE: Texas Education Agency (TEA) Management Information Center (MIC) data files.
	DISTRICT TYPE-7
URBAN	The central cities of the state's seven largest Standard Metropolitan Statistical Areas as defined by the U.S. Bureau of Census.
OTHER CENTRAL CITY	The central cities in the state's remaining Standard Metropolitan Statistical Areas as defined by the U.S. Bureau of Census.
SUBURBAN	Fast Growing-An outlying district adjacent to a Central City that shows a high ADA growth rate over three years. Stable-An outlying district adjacent to a Central City that has not shown a high ADA growth rate.
NON-METROPOLITAN 1000 + ADA	Includes all school districts with 1,000 ADA or above which are not found in the first 4 categories.
NON-METROPOLITAN TOWN	Includes school districts which have less than 1,000 ADA and which encompass a town of approximately 1,000 persons or more.
RURAL	A district of less than 1,000 ADA having no central town. SOURCE: TEA MIC data files.

GROUP LABEL	CATEGORY TITLE-NUMBER OF GROUPS Group Definition-SOURCE of Data
	ETHNICITY-3
BLACK MEXICAN AMERICAN OTHER	Ethnic designation filled in by school personnel for each pupil. SOURCE: Pupil information form (PI).
	SEX-2
MALE FEMALE	Sex designation filled in by the school personnel for each pupil. SOURCE: PI
	TITLE I PARTICIPATION-2
TITLE I REGULAR-YES TITLE I REGULAR-NO	YES if the school district indicated that the pupil participates in a Title I (Regular) program of federally-funded compensatory education programs and services for educationally disadvantaged pupils. Otherwise NO. SOURCE: PI
	STATE COMPENSATORY PARTICIPATION-2
STATE COMP. ED-YES STATE COMP. ED-NO	YES if a school district indicated that the pupil participates in a State Compensatory Education program for educationally disadvantaged children. Otherwise NO. SOURCE: PI
	READING MATERIALS IN THE HOME-4
READ MATERIALS-0-1	Pupil responded YES to zero or one of the above four questions.
READ MATERIALS-2	Pupil responded YES to any two of the above four questions.
READ MATERIALS-3	Pupil responded YES to any three of the above four questions.

GROUP LABEL	CATEGORY TITLE-NUMBER OF GROUPS Group Definition-SOURCE of Data
READ MATERIALS-4	Pupil responded YES to all four of the above four questions. SOURCE: Tailsheet Information (TS)
	TV WATCHING TIME-5
TV NONE TV-1-2 HOURS TV-2-3 HOURS TV-3-4 HOURS TV-OVER 4 HOURS	Amount of time the pupil indicated watching TV the previous night. SOURCE: TS
	HOMEWORK TIME PER WEEK-4
	The pupil indicated the following:
HOMEWORK NOT ACCOMPLISHED	No homework is assigned or assigned but not accomplished.
HMWK-LESS 5 HOURS/WK	The pupil does less than 5 hours homework per week.
HMWK-OVER 5 HOURS/WK	The pupil does more than 5 hours homework per week. SOURCE: TS
	HOME LANGUAGE-3
LANGUAGE USED-ENGLISH	The pupil indicated that only English is used in the home.
LANGUAGE USED-TWO LANGUAGES	• English is the most often spoken in the home, but another language is also spoken. • Another language is used most often.
LANGUAGE USED-NON-ENG.	A language other than English is the only language spoken. SOURCE: TS

GROUP LABEL	CATEGORY TITLE-NUMBER OF GROUPS Group Definition-SOURCE of Data
	PARENTS' EDUCATION-4 **(Grade 11)**
PARENT NO H.S.	Neither parent went to high school.
PARENT SOME H.S.	At least one parent went to high school but neither graduated.
PARENT H.S. GRAD.	At least one parent graduated from high school.
PARENT POST H.S.	At least one parent had some post high school education.
	SOURCE: TS
	PUPIL'S EDUCATIONAL EXPECTATIONS-5 **(Grade 11)**
	Pupil expects to:
EXP. GRAD. H.S.	Graduate from high school.
EXP. VOC. TECH.TRADE	Go to a vocational, technical, trade, or business school.
EXP. JR. COLLEGE	Go to a two-year or junior college.
EXP. FOUR-YR COLLEGE OR MORE	Go to a four-year college or university and/or go to a graduate or professional school after college.
	SOURCE: TS

APPENDIX B
TEXAS ASSESSMENT PROJECT
PUPIL INFORMATION
(To be completed by the school)

Information about pupil number:

Grade

☐

- ○ 5
- ○ 8
- ○ 11

Sex

☐

- ○ M
- ○ F

Ethnicity

☐

- ○ Black
- ○ Mexican American
- ○ Other

1. Participation in any program under the National School School Lunch and Child Nutrition Program.

	YES	NO
Is the pupil eligible for free meals?	○	○
Is the pupil eligible for reduced price meals?	○	○

2. Participation in special programs. Mark YES or NO to indicate whether or not the pupil participates in the program listed.

	YES	NO
SPECIAL EDUCATION **Grades 5, 8, & 11**	○	○
COMPENSATORY EDUCATION **Grades 5 & 8 ONLY** (Title I Regular, Title I Migrant, or State Compensatory Education)	○	○

FOR RTI USE ONLY
Mark YES or NO to indicate whether or not this form was completed. ○ ○

○ ○ ○ ○ ○ ○ ○ ○ ○
○ ○ ○ ○ ○ ○ ○ ○ ○
○ ○ ○ ○ ○ ○ ○ ○ ○
○ ○ ○ ○ ○ ○ ○ ○ ○
○ ○ ○ ○ ○ ○ ○ ○ ○

APPENDIX C
TAILSHEET INFORMATION
(Completed by the Student)

1. Does your family get a newspaper regularly?
   A. Yes
   B. No
   C. I don't know
   D. I prefer not to answer.

2. Does your family get any magazines regularly?
   A. Yes
   B. No
   C. I don't know.
   D. I prefer not to answer

3. Are there more than 25 books in your home?
   A. Yes
   B. No
   C. I don't know.
   D. I prefer not to answer.

4. Is there an encyclopedia in your home?
   A. Yes
   B. No
   C. I don't know.
   D. I prefer not to answer.

5. How much television did you watch last night?
   A. None
   B. One hour or less.
   C. 1 to 2 hours
   D. 2 to 3 hours
   E. 3 to 4 hours
   F. 4 to 5 hours
   G. 5 to 6 hours
   H. Six hours or more.
   I. I prefer not to answer.

6. Approximately what is the average amount of time you spend on homework a week?
   A. No homework is ever assigned.
   B. I have homework, but I don't do it.
   C. Less than 5 hours a week.
   D. Between 5 and 10 hours a week.
   E. More than 10 hours a week.
   F. I prefer not to answer.

7. Which sentence best describes the language spoken in your home?
   A. We always speak English.
   B. We always speak another language.
   C. We speak English most of the time.
   D. We speak another language most of the time.
   E. I prefer not to answer

*8. How would you describe the grades you have made since you entered high school?
   A. Mostly A's
   B. Mostly A's and B's
   C. Mostly B's
   D. Mostly B's and C's
   E. Mostly C's
   F. Mostly below C
   G. I prefer not to answer.

*9. How much school did your father complete? (FILL IN THE ONE OVAL which best shows how much school your father completed.)
   A. Did not complete the 8th grade.
   B. Completed the 8th grade, but did not go to high school.
   C. Went to high school, but did not graduate from high school.
   D. Graduated from high school.
   E. Some education after graduation from high school.
   F. I don't know.
   G. I prefer not to answer.

*10. How much school did your mother complete? (FILL IN THE ONE OVAL which best shows how much school your mother completed.)
   A. Did not complete the 8th grade.
   B. Completed the 8th grade, but did not go to high school.
   C. Went to high school, but did not graduate from high school.
   D. Graduated from high school.
   E. Some education after graduation from high school.
   F. I Don't know.
   G. I prefer not to answer.

*11. How much schooling do you think you will get?
   Do you expect to:
   A. Graduate from high school.
   B. Go to vocational, technical, trade, or business school.
   C. Go to a two-year or junior college.
   D. Go to a four-year college or university.
   E. Go to a graduate or professional school after college.
   F. I prefer not to answer.

*Indicates questions that were asked of 11th graders only.

APPENDIX D

School Identification Number

PRINCIPAL'S QUESTIONNAIRE

On this questionnaire, you are asked to describe the extent to which certain aspects of free enterprise/consumer/economic education and career education are present in the instructional program of your high school. It is not expected that any district will necessarily have all of these elements in place, and the questions are not intended as "norms" which individual school districts are expected to meet. The questions are designed to provide descriptive information so that directions for growth and improvement can be established for the coming years.

Please have the questionnaire completed by the date on which 11th grade students are tested in your school for the 1979 Texas Assessment Project. The **test administrator** conducting the student assessment in your school will pick up the questionnaire from you at that time.

FREE ENTERPRISE/CONSUMER/ECONOMIC EDUCATION

For each of the following questions, check the appropriate box(es) to indicate that this is being done in your high school in one or more of the three areas:

		Free Enterprise Education	Consumer Education	Economic Education	None of These
1.	Are students in your school receiving instruction in these areas?	☐	☐	☐	☐
2.	Have the teachers in your school been provided any special inservice training?	☐	☐	☐	☐
3.	Have curricular support materials been provided by teachers?	☐	☐	☐	☐
4.	Has an assessment of student achievement been conducted in the last two years?	☐	☐	☐	☐
5.	Has your school developed and offered one or more special courses?	☐	☐	☐	☐

		Free Enterprise Education	Consumer Education	Economic Education	None of These
6.	Have concepts and competencies been taught by teachers of various required or elective courses?	☐	☐	☐	☐
7.	Have the following sources been used by the teachers on your campus in obtaining information and training in the last two years?				
	A. District-wide inservice.	☐	☐	☐	☐
	B. Campus inservice	☐	☐	☐	☐
	C. Regional inservice or technical assistance	☐	☐	☐	☐
	D. College and university courses	☐	☐	☐	☐
	E. Personal reading and research (teacher initiated)	☐	☐	☐	☐
	F. Other (Specify_____)	☐	☐	☐	☐
8.	Are the following kinds of instructional materials used in the classroom by teachers in your school?				
	A. Commercially prepared materials purchased by the district	☐	☐	☐	☐
	B. Materials given free by businesses and other groups	☐	☐	☐	☐
	C. Materials from libraries, education service centers, or similar sources	☐	☐	☐	☐
	D. Teacher-made materials	☐	☐	☐	☐
	E. State-adopted textbooks	☐	☐	☐	☐
	F. Other (Specify_____)	☐	☐	☐	☐

APPENDIX E
STUDENT QUESTIONNAIRE ITEMS FOR ECONOMIC EDUCATION
GRADE 11

12. Have you received credit for or are you now taking any of the courses listed? (Mark the ovals below.)

13. Which of the courses listed helped you answer questions on this test? (Mark the ovals below.)

YES	NO		YES	NO
O	O	Fundamentals of the Free Enterprise System	O	O
O	O	Mathematics of Consumer Education	O	O
O	O	Fundamentals of Mathematics	O	O
O	O	Economics	O	O
O	O	American History	O	O
O	O	World History	O	O
O	O	Government	O	O
O	O	World Geography	O	O
O	O	Personal Business Management (General Business)	O	O
O	O	Business Mathematics	O	O
O	O	Business Law	O	O
O	O	Business Management	O	O
O	O	Homemaking	O	O
O	O	Consumer Education	O	O
O	O	Agriculture	O	O
O	O	CVAE (Coordinated Vocational Academic Education)	O	O
O	O	DE (Distributive Education)	O	O
O	O	Health Occupations	O	O
O	O	Industrial Education	O	O
O	O	Industrial Arts	O	O
O	O	VOE (Vocational Office Education)	O	O

APPENDIX G

METHOD TO COMPUTE PERFORMANCE SCORE

To avoid misinterpretation with the percentage of *students* mastering an objective, as reported in Section III of this report, and avoid the index reported being dependent on the number of objectives measured in the total test, a performance score was developed. This score is computed as follows:

$$\text{Performance Score for Consumer Education Test, Grade 5} = 100 \text{ (times)} \left[\begin{array}{l}\text{Average number of objectives} \\ \text{mastered per student divided by} \\ \text{the total number of objectives}\end{array}\right]$$

$$= 100 \times \left[\frac{\text{Average of Number of Objectives Mastered Per Student}}{6}\right]$$

For example, if the average number of objectives mastered per student is *4*, then the Performance Score is 67 percent, that is

$$\text{Performance Score} = 100 \times 4/6 = 67\%$$

Note that the performance score IS NOT a measure of the percentage of students having a specified attribute, but is instead an index of student performance for the designated economics test. The score has a range of value from 0 to 100 score points with 100 being the "best" or highest possible student performance. The performance score was selected for use in this report over the percentage of students mastering an objective to reduce the number of results needed to compare student performance between the selected sub-populations which is the primary purpose of the analysis. An alternative interpretation of the aggregated score, which IS NOT used in this report, is the percent of objectives mastered by the *average* or typical student.

APPENDIX F

PERCENT OF HIGH SCHOOL PRINCIPALS REPORTING ECONOMICS EDUCATION IMPLEMENTATION ACTIONS TAKEN FOR THE STATE AND FOR SEVEN TYPES OF SCHOOL DISTRICTS

Economics Education Implementation Activities		Statewide Results	Urban	Other Central Cities	Fast Growing Suburbs	Stable Suburbs	Non-Metro With 1000 + ADA	Non-Metro Town	Rural
1. Are the students in your school receiving instruction in these areas?	Consumer Education	89	97*	97*	92	91	91	96*	80*
	Free Enterprise	95	87*	92	96	98*	99*	96	93
	General Economics	69	86*	91*	79	79*	68	57*	63
2. Have the teachers in your school been provided any special inservice training?	Consumer Education	45	65*	51	46	40	37*	56*	37*
	Free Enterprise	53	67*	66*	66*	72*	55	52	40*
	General Economics	31	58*	59*	39*	33	21*	30	22*
3. Have curricular support materials been provided to teachers?	Consumer Education	81	86*	78	84	88	83	87	73*
	Free Enterprise	90	81*	88	95*	91	91	93	88
	General Economics	57	74*	75*	66	64	50*	52	52
4. Has an assessment of student achievement been conducted in the last two years?	Consumer Education	25	44*	29	23	21	20*	35*	19*
	Free Enterprise	27	37*	27	25	22	23	36*	22
	General Economics	21	44*	23	24	15*	13*	23	20
5. Has your school developed and offered one or more special courses?	Consumer Education	49	54	69*	57*	42	56*	53	37*
	Free Enterprise	57	45*	53	71*	52	62	52	57
	General Economics	34	49*	53*	45*	36	27*	31	28
6. Have concepts and competencies been taught by teachers of various required or elective courses?	Consumer Education	77	89*	86	85*	82	75	80	66*
	Free Enterprise	81	76	84	85	88*	85	83	77
	General Economics	58	84*	74*	74*	69*	58	48	46*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

7. Have the following sources been used by the teachers on your campus in obtaining information and training in the last two years?

A.	District-wide inservice	Consumer Education	30	62*	26	31	35	18*	40*	22*
		Free Enterprise	36	69*	47*	40	45*	22*	38	29
		General Economics	21	57*	39*	25	23	10*	18	16*
B.	Campus inservice	Consumer Education	23	41*	39*	26	21	21	29	12*
		Free Enterprise	27	41*	42*	32	36	34*	28	13*
		General Economics	17	36*	32*	22	21	13*	19	10*
C.	Regional inservice or technical assistance	Consumer Education	41	34*	35	38	35	44	59*	35*
		Free Enterprise	52	38*	42*	68*	51	53	64*	48
		General Economics	27	33*	31	29	29	26	32	22
D.	College and university courses	Consumer Education	27	32	40*	36*	31	24	37	16*
		Free Enterprise	36	35	60*	60*	54*	41	25*	24*
		General Economics	24	41*	62*	38*	39*	15*	25	12*
E.	Personal reading and research (teacher initiated)	Consumer Education	69	82*	69	74	64	72	80*	57*
		Free Enterprise	79	82	76	82	83	81	74	77
		General Economics	52	75*	57	59	49	52	47	45*
F.	Other (Specified by Principal)	Consumer Education	3	5	0*	4	3	6*	4	0*
		Free Enterprise	3	7*	6*	5*	5	2	3	1*
		General Economics	2	3*	3*	4*	4*	2	0*	0*

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.

8. Are the following kinds of instructional materials used in the classrooms by teachers in your school?

A.	Commercially prepared materials *purchased* by the district	Consumer Education	68	83*	84*	74	74	76*	69	53*
		Free Enterprise	64	74*	73	77*	75	72*	55	54*
		General Economics	46	74*	61*	57*	57*	41	37	37*
B.	Materials *given free* by business and other groups	Consumer Education	79	80	87*	81	86*	81	87*	88*
		Free Enterprise	82	73*	88	90*	88	86	84	77
		General Economics	56	59	66*	63	49	59	53	49*
C.	Materials from libraries, education service centers, or similar sources	Consumer Education	83	88	92*	88	89*	85	86	74*
		Free Enterprise	86	76*	92	96*	86	94*	88	84
		General Economics	62	73*	91*	66	61	59	58	57
D.	Teacher-made materials	Consumer Education	75	92*	77	80	77	82*	80	82*
		Free Enterprise	73	80*	77	85*	86*	84*	87*	81*
		General Economics	51	78*	72*	59	64*	50	37*	45*
E.	State-adopted textbooks	Consumer Education	71	87	79	74	73	73	86*	80*
		Free Enterprise	74	58*	86	78	71	73	77	77
		General Economics	56	80*	74*	66	63	44*	52	53
F.	Other (Specified by Principal)	Consumer Education	2	6*	0*	1*	5	3	1	1
		Free Enterprise	1	4*	0*	1	2	2	1	0*
		General Economics	1	6*	0*	1	2	2	0*	1

*Indicates that the percentage figure shown is above or below the statewide percentage and the difference in the two is statistically significant.